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REPORT

OF THE

COMMISSIONERS OF THE DISTRICT OF COLUMBIA

FOR THE

YEAR ENDED JUNE 30, 1897.

VOL. II.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1897.

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REPORT

OF THE

OPERATIONS OF THE ENGINEER DEPARTMENT

OF THE

DISTRICT OF COLUMBIA

FOR

THE YEAR ENDING JUNE 30, 1897,

UNDER THE DIRECTION OF

MAJOR CHARLES F. POWELL, CORPS OF ENGINEERS, U. S. A.,
ENGINEER COMMISSIONER, DISTRICT OF COLUMBIA,
From July 1, 1896, to March 1, 1897,

AND

CAPTAIN W. M. BLACK, CORPS OF ENGINEERS, U. S. A.,
ENGINEER COMMISSIONER, DISTRICT OF COLUMBIA,
From March 2, 1897.

EXTRACT FROM THE REPORT OF THE COMMISSIONERS OF THE DISTRICT OF COLUMBIA FOR THE YEAR ENDED JUNE 30, 1897.

OFFICE OF THE COMMISSIONERS
OF THE DISTRICT OF COLUMBIA,
Washington, December 2, 1897.

The PRESIDENT:

The Commissioners of the District of Columbia herewith submit for the information of Congress, as required by law, their annual report of the official doings of the government of said District for the fiscal year which ended June 30, 1897.

* * * * * * *

OPERATIONS OF THE ENGINEER DEPARTMENT.

From the first of the fiscal year to and including March 1, 1897, the operations of the Engineer Department of the District government were under the direction of Maj. Charles F. Powell, Corps of Engineers, U. S. A. From and including March 2, 1897, the operations of this department were under the supervision of the present Engineer Commissioner, Capt. W. M. Black, Corps of Engineers, U. S. A., who succeeded Major Powell on that date.

* * * * * * *

STREET AND ALLEY PAVEMENTS.

During the year about 55,152 square yards of new concrete pavement were laid, nearly all within the city. Of this, 45,880 square yards were of sheet asphalt and 9,272 of block asphalt, aggregating respectively 2.33 and 0.44 miles. In the renewal of worn-out pavements 5,238 square yards (0.27 miles) were removed and replaced with asphalt, 39,336 square yards of coal-tar pavements were resurfaced with asphalt or, replaced entirely by it, and 5,050.33 square yards of asphalt block were resurfaced with asphalt. The details of the work can be found in the appended reports of Captain Beach and of Mr. Hunt. (See Vol. II, pp. 3 and 16.) No changes in methods or materials were made during the year excepting in the method of removing small portions of worn asphalt surface for repairs. After extended tests the use of the burner was directed where applicable, as being in the interests of economy and efficiency. New pavements to be constructed will be of sheet asphalt, block asphalt or brick. The granite-block pavement has proved unsatisfactory for this city, for reasons given in Captain Beach's report. Further tests are being made of brick pavement on a concrete base, in the hope that the recent improvements made in the quality of the bricks manufactured for street work will show a greater toughness in the material, which will prevent the splintering under traffic which has caused the dissatisfaction in the past. In the absence of any conclusive laboratory test for paving brick, it is deemed best to make the test of actual use, and thus to determine what makes of brick can be

depended upon. Some of the makes of brick now in place in the city give good promise of durability under the ordinary conditions of traffic. In the later work in alleys an elastic asphalt joint on the sides has been used to provide for the expansion of the brick pavements, which has caused trouble elsewhere. Details of pavement construction are given in Captain Beach's report. (See Vol. II, p. 3.)

The question of the repair of paved streets along the tracks of street railway companies is becoming quite a serious one. The existing law under which the railway companies are required to keep the pavements between the rails and tracks and 2 feet exterior thereto in repair, seems to provide inadequate means for its enforcement. In a number of instances dangerous holes which have developed have had to be repaired by the contractor for street pavements, for which work certificates of indebtedness against the delinquent railway company have been issued to him. This entails great hardship to the contractor, who has found it difficult, and in some instances impossible to obtain payment. Captain Beach suggests a remedy in an amended law (see Vol. II, p. 7), which would seem to provide adequately for the maintenance of these pavements at the expense of the companies, without undue hardship to them. The adoption of an act of this character is earnestly recommended. Legislation is also needed to enable the Commissioners to clear the streets of unused street railway tracks.

The paving of the alleys during the past year has been with brick or asphalt block, and the work done has been generally satisfactory. The need of suitable alley provisions is becoming more and more felt yearly. Not only is a good alley system needed to provide for the removal of ashes and garbage without passing through the fronts of the houses, but such a system, if in existence, would render unnecessary to a great extent the tearing up of paved streets for water and sewer connections and electrical conduits, and would provide a comparatively safe and inconspicuous location for the overhead wires necessary for the various electrical services. The present law authorizing the opening of new alleys has proved defective in limiting too much the cases under which the law can be applied, and should be amended.

The use of cement sidewalks is becoming more and more general, especially since under the latest contract the price has been brought down to the low figure of 89 cents a square yard, with a five-year guaranty. Those laid in recent years are giving very general satisfaction, and the cement sidewalk of the present specifications would seem to be more advantageous for this locality than any other known. In some of the suburbs the old plank sidewalks have become rotten and have had to be removed. No more plank walks are being laid, because of the danger to life and limb sure to be caused sooner or later by the rotting and loosening of the planks. Experiments are being made to devise a cheap form of pathway suitable for the suburban districts, and with good promise of success. For example, an ash and cement pathway was recently constructed at a cost of 30 cents a square yard. Experiments are also being made with cement curb. This, possibly, can be substituted for granite in the residence portions of the city.

SUBURBAN STREETS AND COUNTY ROADS.

Particular attention has been paid to the repair of county roads, although the appropriations have been too small to keep even the more important ones in proper condition. No appropriation for watering the roads has been available. In the past ten years the mileage of

county roads and suburban streets has increased from 150 to 207 miles, the increase in the past five years being 17 miles (see Vol. II, map No. 1, p. 293). Many of the large cities throughout the country have been paying especial attention to this class of thoroughfares, and their suburban roads and paths are objects in which they take a just pride. It does seem, for many cogent reasons, that the county roads should receive most careful attention. Since the advent of the bicycle they have become, as never in the past, a means of healthful recreation for all classes. With good roads and bicycles suburban districts become available for residences for persons of small means doing business in the city; with them the bicycle and tricycle have facilitated business deliveries for small dealers; and furthermore, inasmuch as the perishable supplies of the surrounding country are brought over them into the city, the better the roads the cheaper this produce can be delivered. Although lying out of the city, they form a most important adjunct to city life. The appropriation asked for in the estimates, together with the provisions for watering the roads and suburban streets, it is most earnestly hoped will be given, the provision for watering being necessary not only for the comfort of the residents along the roads and of those using them, but also for the preservation of the roads themselves, and therefore as a measure of economy. One of the most important roads in the District—the Canal road—has been until recently owned by a private corporation, so that the expenditure of public funds upon it was a matter of doubtful legality. This has been dedicated to the District, and it is hoped that it can now be kept in better shape.

BRIDGES.

The appropriation for the ordinary care of bridges and construction and repair of bridges has been for some years too small to permit any but the most necessary repairs to be made, and these in the most economical manner possible. As shown in Captain Beach's report (see Vol. II, p. 10), a limit now has been reached which can not be passed with safety, as several of the bridges are now in a dangerous condition. Under the act of Congress approved May 28, 1896, the Capital Railway Company was authorized to run its lines, operated by electricity, across the Navy-Yard Bridge. The weight of a motor car varies from 15,000 to 20,000 pounds, and when loaded with people its weight must be considered in computing the strains as 30,000 to 35,000 pounds. The Navy-Yard Bridge was never constructed to bear such strains. In addition to this, the structure is a very unsightly one and inadequate to meet the demands of travel, and should be replaced by a better new structure, for which estimates have been submitted. In the last appropriation act the Commissioners were directed to obtain by competition plans for a bridge across Rock Creek on the line of Connecticut avenue, extended. It is expected that the plans will be ready for submission to Congress, with estimates in detail, before the beginning of the next calendar year. The work of widening P Street Bridge, as provided for in the last appropriation act, is now in progress.

STREET RAILWAYS.

During the past summer two very important means of street-car propulsion have been under experiment in this city. As permitted by its charter, the Capital Railway obtained authority from the Commissioners to install the Brown electric system on its line between the Navy-

request for early action thereon. It is earnestly hoped that this, or some other means which Congress in its wisdom may devise, will be provided for this necessary work. It is estimated that the entire project could be completed in about five years and that the amount which could be used to advantage during the first year would be $800,000.

PLUMBING.

The work of this department is shown in the appended report of Mr. C. B. Ball, inspector of plumbing (see Vol. II, p. 150). As stated by Captain Beach, the services rendered by this office seem to be appreciated more and more each year by the public, and it is believed that the efficiency of the service rendered has been greatly improved. Modern conditions of living are making the health of the community more and more dependent upon the excellency of the plumbing in the houses, and call for the highest skill on the part of the plumber. The health of the community would seem to demand that the same safeguards be thrown about this class of work as are required for the work of the pharmacist. A bill designed to maintain a high standard of plumbing work will be presented at the coming session of Congress.

TESTS OF MATERIALS.

Details of the work of the officer having charge of this important duty are shown in the report of Mr. A. W. Dow, inspector of asphalt and cements (see Vol. II, p. 157). A testimonial of the value of this work is found in the many requests for reports of the tests made, which come annually from city engineers.

PROPERTY.

The work of the office of the superintendent of property is fully set forth in the report of its superintendent, Mr. L. T. Boiseau (see Vol. II, p. 173). Attention is also invited to the report of Captain Beach relating to this division of his duties (see Vol. II, p. 13). It would seem that it would be to the interest of the District that the requirement of section 5 of the act providing a permanent form of government for the District of Columbia, requiring that contracts be entered into for expenditures of $1,000 and over, should be so amended as to permit materials, at least, to be purchased by contract or in open market at the discretion of the Commissioners, as economy and advantage may dictate, as is done in the case of works of river and harbor improvement carried on by the General Government.

WATER DEPARTMENT.

As is well known, the water service of the District is divided under two heads. First, the supply works, carried on under the direction of the Chief of Engineers, and, second, the works of distribution, under the District government. The present provision for the water supply from the Great Falls to the distributing reservoir is ample for present needs, while the means of distribution are now inadequate, as shown by the low pressures in certain portions of the city, notably on Capitol Hill. The present needs of the city urgently demand the completion of the Howard University reservoir and of the tunnel conduit leading thereto. With this completed, the loss of head due tofriction in the 4

miles of pipe will be removed, and a greatly increased head will be given in residence sections now provided by gravity supply.

For details of the work of the water department, attention is invited to the accompanying report of Capt. Edward Burr, U. S. A., assistant in charge (see Vol. II, p. 181).

The distributing service of the District is of three classes—the low service, supplied by gravity, and the middle and high services, supplied by pumping from the gravity supply. The areas embraced in each of these services is shown on map, Vol. II, p. 195, appended.

From Captain Burr's report it will be seen that, while the supply at the distributing reservoir is sufficient for present needs, the service at the houses is already insufficient and a cause of legitimate complaint on the part of property owners. The completion of the Howard University reservoir and its means of supply will remedy this in part, but as the number of the inhabitants of the District increases the present system of distribution will become more and more inadequate, and large expenditures will be necessitated for increasing the distribution facilities. This, in turn, is shown by the report of the officer in charge, that the water supply of Washington, if continued at the present rate of increase, will necessitate within a few years an additional aqueduct from Great Falls to the distributing reservoir.

A portion of the water now flowing through the pipes is required for legitimate uses, but another and a large portion is absolutely wasted. It would seem, then, to be a matter of the merest business good sense to provide for the utilization to their fullest extent of our present means of supply by stopping this waste before going to increased expense for larger and more mains, especially since, as shown by Captain Burr, the greater the amount of water provided under the present system the greater the proportion of waste. This waste is due to negligence or to mistaken ideas of sanitation. In some instances the plumbing is permitted to remain defective, causing small leaks which aggregate a large amount. For example, a small dribble from one defective tap recently measured was found to amount in twenty-four hours to 394 gallons, which was more than was found to be used in the same house by a family of nine persons. In other cases water closet fixtures are tampered with so as to cause a continuous flow, or taps are allowed to remain open continuously. As the result of this, the use and waste of water in the city of Washington foots up a consumption of 150 gallons daily per capita, where, as shown by many instances, 50 gallons per day per capita may be considered a sufficient supply, 75 gallons an ample one for ordinary domestic uses, allowing for the sprinkling of lawns, and 100 gallons a very large supply, sufficient to cover all unavoidable waste and all legitimate municipal and domestic uses. It will readily be seen that this cutting down of the supply from 150 to 100 gallons per capita per day is equivalent to an increase of one-third of the capacity of the present system.

It has been claimed that the use of water by the General Government at its various Departments is responsible for a large portion of the enormous per capita consumption in Washington. It would seem that a greater economy of such use might be secured without detriment to departmental needs. But when it is noted that in the middle and high services the ratio between the midnight and midday flow is practically the same as in the low-service area, in which all of the Departments practically are, it will be seen that the District and the citizens are also at fault.

So far as known there is only one practicable method of preventing

this waste, and that is by the use of meters. It is earnestly urged that the gradual introduction of meters be authorized, as recommended in the estimates of the Commissioners. It is proposed to introduce these meters gradually, at the expense of the District, in measure as the revenues of the water department will permit. This will probably be at a rate which would meter the entire District in ten or fifteen years, so that the cost would not all come at once, while by placing the meters where the greatest waste exists the total waste in the city will be cut down much more rapidly. It is further proposed to charge a minimum amount where meters are used of 75 cents per quarter, or $3 a year, 50 cents less than the present minimum rate. This would allow a minimum use of 100,000 gallons for $3, the amount used in excess of this to be paid for at the rate of 3 cents per thousand gallons. At this rate there will be no increase of water rates to the householder for all legitimate uses of water and unavoidable waste. Incidentally, the benefits derived from the introduction of meters would result in providing the only practicable method of having each man pay the expense incurred by the District for the amount of water that he uses, instead of, as at present, paying an arbitrary rate, by which the careful man pays for the extravagance or negligence of his neighbor. The District authorities are now endeavoring to put an end to the waste in the public works and buildings under their charge.

The prevention of water waste will have a marked influence on the problem of purifying the Potomac water by filtration, the cost of such filtration and the difficulty of installing the necessary plant being a direct function of the amount of water to be filtered. As the population on the banks of the Potomac increases, the necessity for such filtration will become more and more imminent.

Numerous figures could be given, if space permitted, in support of the statements made above, but such detail is not considered necessary at present.

A synopsis of the work of the water department during the past fiscal year shows that 94,015 feet of water mains were laid; that high-service mains were extended to Takoma Park and other points heretofore without water facilities; and that the middle-service system has also been extended to include certain areas of the low service in which the pressure was insufficient to furnish a fair supply.

The passage of bill No. 10331, introduced in the Fifty-fourth Congress at its second session and passed by the Senate and House of Representatives, but which failed to become a law, is earnestly recommended, in order to permit suburban settlements at a distance from water mains to be supplied without undue hardship to the owners of intervening lands used solely for agricultural purposes.

WELLS.

As the years go by the old shallow wells, much used by the inhabitants of the older sections of the District, become contaminated and have to be closed, generally against the protests of the neighborhood. One hundred and thirty-five public shallow wells were in use at the end of the fiscal year, 11 having been closed during the year. During this time, with the appropriation available, 20 deep wells were driven at various localities throughout the District, sunk to a depth sufficient to prevent contamination from surface drainage. These are giving a supply of pure cool water which is highly appreciated. The work of substituting these deep wells for the shallow ones should be continued.

STREET LIGHTING AND ELECTRICITY.

The street lighting has been rendered more satisfactory during the past fiscal year by the abolition of the so-called moonlight schedule, but it is not yet entirely satisfactory. Limited appropriations have made it impossible to provide sufficient lighting in many of the alleys and suburban portions of the District. Details of the service are found in Captain Burr's report (Vol. II, p. 198) and in the report of the inspector of electric lights, Vol. II, p. 226.

Captain Burr states that the streets of Washington are most difficult to light, owing to the heavy shade, and that the rows of trees at the curb line make the use of high candle power arc lamps, spaced at long intervals, generally unsuitable. Insufficient appropriations and statutory limitations prevent the erection of such lamps on many business and rapid transit streets, where the need for them is greatest. The use of the arc lamps on residence streets should be avoided as far as possible. In these statements the Commissioners concur. They also concur in Captain Burr's recommendation that authority be given to expend a small portion of the annual appropriation for experimental lighting and improved lamps, not restricted as to cost, hours of lighting, and consumption of gas or candle power. A more liberal appropriation for street lighting is also recommended, as also an increase of the office force to provide for the additional work falling upon this department, due to the increase in the population of the District and the necessity for the supervision of electric wires and conduits.

The introduction of electricity into the District since the organization of the District government has brought an entirely new class of work upon this department in the supervision of electrical wires and the enforcement of laws relating thereto. The legislation relating to the extension of electrical systems for telegraph, telephone, lighting, and power purposes is vague in terms, and its interpretation has been a source of great trouble to the Commissioners. A definite law to govern the extension and control of all these electrical systems is urgently needed.

The report of Inspector W. C. Allen on electrolysis, printed October 29, 1897, for the use of the Senate Committee on the District of Columbia, previously referred to, shows only one of the many dangers to public and private works arising from the use of electricity from which protection is required.

BUILDINGS AND BUILDING INSPECTION.

The details of the work of the office of the inspector of buildings will be found in the appended reports of Captain Burr and the building inspector (Vol. II, pp. 200 and 250). The work of this office is of the very highest importance, as upon it depends the enforcement of the regulations for safe building in the District of Columbia. The area to be covered is very large, and the force available under the present law is totally inadequate. The annual estimates submitted by the Commissioners contain an estimate for the increase of this force, and such an increase is here strongly recommended. The small force renders it practically impossible to prepare properly in the office of the inspector of buildings plans for the municipal buildings authorized by Congress. This condition, and also the desirability of having a diversity in municipal architecture, and in general of obtaining the best results, makes the employment of outside architects in preparing plans for the new build-

ings necessary. The Commissioners also desire to invite attention to the ill effects of making a fixed and definite appropriation for each engine house or schoolhouse of a given size. The prices of land for the sites vary greatly according to their location. Under the system above alluded to, the greater the cost of the site the less the amount available for the construction of the building; hence, necessarily, the plainest buildings have been erected on the most conspicuous sites. In addition to this, contract prices vary slightly from time to time and according to locality. For all of these reasons the Commissioners would recommend that in making appropriations for a definite number of schoolhouses and engine houses the amount be appropriated in lump sums for each class, based upon the amounts named in the estimates for each house authorized, similar to the method now followed in making appropriations for improvements and repairs of streets.

SURVEYOR.

Details of the work of this office are found in the appended report of Mr. William Forsyth (Vol. II, p. 260). Since the close of the fiscal year Mr. Forsyth, after nearly fifty years of service, severed his connection with the work on account of advanced age. It seems but fitting for the Commissioners to record here their appreciation of his long and faithful services to the District of Columbia.

PARKING COMMISSION.

The work of the parking commission is shown in the report of the superintendent of parking, appended hereto (Vol. II, p. 262). The shade trees of the city form one of the great beauties of Washington, and in addition add greatly to the comfort of citizens. The appropriations for the past few years have been inadequate for the work required, and an increase is asked for and recommended. The severe storms which occurred early in the fiscal year damaged the trees greatly and placed a very heavy burden on the limited appropriation available. The damage has not yet been repaired, and is another reason for an increased appropriation.

At the close of the fiscal year the parking commission lost by death one of its oldest members, Mr. John Saul, to whose memory it is due to acknowledge the debt which the city owes to him for his voluntary service of many years.

HIGHWAY-EXTENSION PLANS.

For details of the work of the assistant in charge of highway extension plans, attention is invited to the report of Mr. W. P. Richards, appended (Vol. II, p. 265). In addition to the work of preparing plans, a portion of the office force was kept almost constantly employed in the location of street lines and the accurate determination of points in the various subdivisions. The constitutionality of the highway act having been affirmed by the decision of the Supreme Court, the plans of the second section, which had been completed and signed in January, were forwarded to the highway commission for revision, and at the present writing are in the hands of the Commissioners, having been referred back for report on various protests. The plans of the third section, embracing the territory west of Rock Creek, are now ready for transmission to the highway commission. The plans of the fourth section have been par-

tially prepared. The cases arising in the recorded subdivisions under the first section are now in the courts. The experience of the past year has shown the desirability of certain amendments of the act of March 2, 1893, and the recommendations for legislation thereon will be forwarded early in the next session of Congress.

In conclusion, it is deemed only fitting to acknowledge the good work of the military and civil assistants and of the clerical force of the various departments of the office, who have not spared themselves in carrying out their duties to the best of their ability.

Very respectfully,

JOHN W. ROSS,
JOHN B. WIGHT,
W. M. BLACK,
Commissioners of the District of Columbia.

REPORT OF THE OPERATIONS OF THE ENGINEER DEPARTMENT.

SECOND DIVISION.

Capt. L. H. BEACH,

Corps of Engineers, United States Army, Assistant to the Engineer Commissioner.

STREETS, PAVEMENTS, GRADES, AND CONSTRUCTION OF ROADS.	CONWAY B. HUNT, *Computing Engineer.*
SIDEWALKS AND ALLEYS	H. N. MOSS, *Superintendent of Streets.*
MAINTENANCE OF COUNTY ROADS	GEORGE N. BEALE, *Superintendent of Roads.*
CONSTRUCTION AND CARE OF BRIDGES	GEORGE H. BAILEY, *Engineer of Bridges.*
SEWER CONSTRUCTION AND MAINTENANCE	D. E. MCCOMB, *Superintendent of Sewers.*
PLUMBING PLANS AND INSPECTION	CHARLES B. BALL, *Inspector of Plumbing.*
INSPECTION OF ENGINEERING MATERIALS AND CARE OF PROPERTY.	L. T. BOISEAU, *Superintendent of Property.*
TESTING OF ENGINEERING MATERIALS	A. W. DOW, *Inspector of Asphalt and Cements.*
PERMITS	H. M. WOODWARD, *Permit Clerk.*

CAPTAIN: I have to submit the following report for the past fiscal year of the divisions and departments of the District government under my charge:

STREETS.

During the year 2.33 miles of streets, amounting to 45,880 square yards, were newly paved with asphalt; 0.44 mile, or 9,272 square yards, were paved with asphalt block, and 0.27 mile, or 5,238 square yards, of old pavement were removed and relaid with asphalt; 39,336 square yards of original coal-tar pavement were resurfaced with asphalt or replaced entirely with asphalt; 5,050.33 square yards of asphalt block were resurfaced with asphalt. The total number of miles of the different kinds of pavements in the District is shown in Table E, of Mr. Hunt's report, on page 20.

No granite-block pavements were laid, and it is not probable that any more will be. The noisiness of those that are now upon some of the streets is a source of constant complaint from the people accustomed to the quietness of smoother pavements, and their slipperiness upon the steeper grades after they have been down a year or two forms a strong objection to their use. This slipperiness exists mainly during dry weather, the smooth tops of the blocks becoming coated with a thin layer of iron from the horses hoofs, which appears to act as a lubricant almost as effective as graphite, but which largely disappears, however, when the street is thoroughly wet. This slipperiness might not be so important in other cities, but here, where, owing to the moderate grades and mild winter climate, the horses are, as a rule, unprovided with calks, it becomes a serious objection. The office is constantly in receipt of requests to have the existing granite pavements removed or covered with asphalt. This covering of granite-block pavement with asphalt has been tried several times in this city

in the past, but has never proved satisfactory or economical, as there does not appear to be a sufficient bond between the smooth blocks and the new material, with the result that in a short time holes appear, which involve constant repair if the street is to be kept in proper condition.

An example of a granite-block street that has become dangerous from slipperiness is P street, between Rock Creek and Twenty-seventh street. This street forms the north entrance to Georgetown from the main portion of the city, and is subject to a great deal of travel, in spite of the fact that it is used by vehicles only when unavoidable. Residents of the street state that upon an average three horses a day are thrown down within sight of their houses; the average for the entire street must be considerably larger. Its highly dangerous condition seems to call for a special appropriation for repaving, and the importance of the work should be strongly presented to Congress.

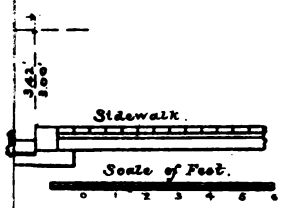
No vitrified brick pavements have been laid upon the streets during the year. There are some localities where it is believed that this material could be used with advantage, although the residents of the city appear to be strongly prejudiced in favor of asphalt.

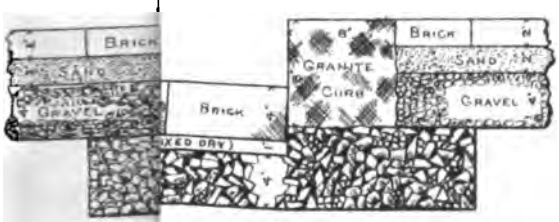
Graveling and macadamizing were used upon several of the outlying streets for which there were no funds for a permanent improvement. The two terms were formerly used to express different methods of road making, but the experience of the office tends toward a combination of the two, consisting of a layer of broken stone covered with a surfacing of gravel, of which several good deposits are found in different parts of the District.

Sheet asphalt and asphalt block continue to be the pavements preferred by the people, and no other kinds were laid during the year. The western portion of the city seems to prefer the sheet asphalt, while the eastern portion expressed itself equally strongly for the other. In laying the sheet-asphalt pavement the practice of making the gutters of vitrified brick has been continued, with very satisfactory results. The reason for this is that as all fluids falling upon a pavement flow to the gutter, it is thus the portion most exposed to their action and the place where decay of the asphalt is most apt to originate, and where it progresses most rapidly. As soon as a gutter becomes uneven it ceases to carry off readily the rain water and other fluids, but allows them to collect in pools, and its disintegration is then more rapid than before. On some of the older streets, where the asphalt was originally laid to the curb, and has decayed and has had to be renewed several times, brick gutters have been put in, with a great advantage both to economy of maintenance and effectiveness of drainage. The first gutters were laid with the brick toothed into the asphalt, but the difficulty of making a repair along the line of junction when so laid has caused later gutters to be laid with a continuous joint. This may expose the joint to greater wear from the wheels of vehicles, but experience has not yet been sufficient to say definitely which is the better method.

The accompanying plate shows the method of laying asphalt pavements ordinarily adopted, and, as the office is in receipt of so many inquiries upon the subject that it is believed to be of general interest, the parts of the specifications relating to the asphalt surface are inserted:

Binder.—The binder course shall be composed of clean broken stone equal in quality to the stone for the base and passing an inch and a quarter screen. Eighty-five per cent of this shall pass in its longest dimensions, and of the remaining 15


Sidewalk.
Scale of Feet.
0 1 2 3 4 5 6


BRICK
SAND
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SAND
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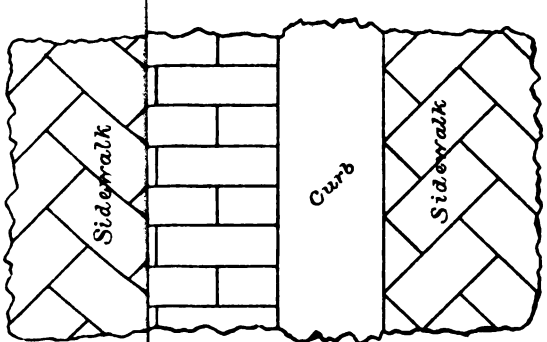
UTTER.


Sidewalk
Curb
Sidewalk

D C 55 2

no piece shall have a larger dimension than 2 inches, and the stone after passing the heating drums shall not contain less than 5 nor more than 15 per cent of material passing a No. 10 screen.

The stone will be heated not higher than 350° F., in suitable appliances. It is then to be thoroughly mixed by machinery with asphalt cement, such as is acceptable for surface cement, at 300° to 325° F.; pentration 100° to 200° F., in such proportions that the resulting binder will have life and gloss without an excess of cement. Should it appear dull from overheating or lack of cement, it will be rejected. While hot it will be hauled upon the work, spread upon the base so that when compacted it will be at least 1½ inches in thickness, and immediately rammed and rolled until it is cold. Should the resulting course not show a proper bond, it shall be immediately removed and replaced by the contractor.

The contractor shall not enter upon a hydraulic concrete base in order to lay the binder course until, in the opinion of the Engineer Commissioner, it has obtained sufficient strength for such a purpose, and during the period between laying base and binder he shall properly protect it, and when ordered by the Engineer Commissioner shall sprinkle it in warm weather, between the hours of sunset and sunrise, as often as may be deemed necessary, and in cold weather cover it with a material suitable for its protection.

Asphalt.—The crude apshalt shall be refined to the satisfaction of the Engineer Commissioner. It shall not at any time reach a temperature of 375° F.

Heavy petroleum oil.—The oil in use in the manufacture of asphalt cement shall be a petroleum from which the lighter oils have been removed by distillation, without cracking, until the oil has the following characteristics: Flash point, not less than 300° F.; distillate at 400° for 30 hours, less than 10 per cent. The flash point shall be taken in a New York State closed oil tester. The distillate shall be made with about 50 grams of oil in a small glass retort provided with a thermometer and packed entirely in asbestos. The residue in the retort after distilling must be fluid at 75° F., and not coarsely crystalline on cooling. Any other softening agents fulfilling the above tests, and approved by the Engineer Commissioner, may be used in place of petroleum oil.

Asphaltic cement.—When the refined asphalt is not already of the proper consistency the cement shall be prepared by tempering refined asphalt with heavy petroleum oil or other approved softening agent complying with the above specications (at a temperature between 250° and 350° F.). The asphalt cement must not be inferior in quality to a cement made of the best quality Trinidad asphalt and petroleum residuum. Its penetration must be within the range of 60° and 120°, and will be fixed by the Engineer Commissioner. A variation of 10° from the degree decided upon will be sufficient cause for rejecting the mixture.

The asphalt cement must never be heated to a temperature exceeding 350° F.

Where asphaltic cement containing over 10 per cent of foreign matter is kept in storage it must be thoroughly agitated when used, as must also all dipping kettles while in use.

Samples of the asphaltic cement and of the petroleum oil shall be supplied to the inspector of asphalt and cements when required, and in suitable tin boxes and cans, and he shall have access to all branches of the works at any time.

Sand.—The sand in use shall be hard grained and moderately sharp. On sifting it should have at least 15 per cent of material that would be caught on a 40-mesh per inch screen, 25 per cent of material that will pass an 80-mesh to the inch screen, 10 per cent of which at least must pass a 100-mesh to the inch screen. If the sand to be used does not contain the desired fine material, limestone dust or other suitable material can be added to make up the deficiency.

Inorganic dust.—This shall be any inorganic dust not acted upon by water, the whole of which shall pass a 30-mesh screen and at least 75 per cent pass a 100-mesh screen.

Asphalt paving mixture.—The materials complying with the above specifications shall be mixed in proportions by weight, depending upon their character and the traffic on the street and upon the character of the asphalt, and will be determined by the Engineer Commissioner, but the percentage of bitumen in any mixture soluble in carbon bisulphide shall not exceed the limits, 9 to 13 per cent. If the proportions of the mixture are varied in any manner from those specified, the mixture will be condemned, its use will not be permitted, and, if already placed on the streets, it will be removed and replaced by proper materials at the expense of the contractor.

The sand or the mixture of sand and stone dust and the asphaltic cement will be heated separately to about 300° F. The dust, while cold, will be mixed with the hot sand in the required proportions and then mixed with the asphaltic cement at the required temperature and in the proper portion, in a suitable apparatus, so as to effect a thoroughly homogeneous mixture. Sand boxes and asphalt gauges will be

weighed in presence of inspectors as often as may be desired, and all samples desired shall be supplied in suitable boxes to the inspector of asphalt and cement, and he shall have access to all branches of the works at all times.

The pavement mixture prepared in a manner thus indicated will be brought to the ground in carts at a temperature of not less than 250° or more than 350° F., and if the temperature of the air is less than 60° F. the contractor must provide canvas covers for use in transit. It will then be thoroughly spread to a thickness of 2½ inches by means of hot iron rakes in such manner as to give uniform and regular grade, so that, after having received its ultimate compression of about two-fifths, it will have a net thickness of at least 1½ inches. This depth will be constantly tested by means of gauges furnished by the Engineer Commissioner. The surface will then be compressed by hand rollers, after which a small amount of hydraulic cement will be swept over it, and it will then be thoroughly compressed by a steam roller weighing not less than 175 pounds to the inch run, the rolling being continued for not less than five hours for every 1,000 yards of surface.

Asphalt blocks used are 12 inches long by 4 inches wide by 5 inches deep. They are made of what may be termed an asphalt concrete, molded under a pressure of 5,000 pounds to the square inch. The asphalt is required to fulfill the same conditions as stated above for sheet asphalt pavement. The blocks are laid ordinarily upon a gravel base, which has answered all purposes to date. The asphalt in this pavement is less liable to decay than in the case of sheet asphalt, and the blocks can be laid to the curb, forming their own gutter.

The first cost of this pavement is somewhat higher than that of sheet asphalt, but it needs much less repair in the cases where it has been used in this city, and its ultimate cost is believed to be no larger. I had hoped to give a table showing the cost of the different pavements for each year of their life, but unfortunately have been unable to have it prepared in time for insertion here. The asphalt block has been used almost entirely upon residence streets of light traffic, so that its behavior under heavy wear is not yet definitely determined. It has been found, however, that this pavement gives much better results when laid in hot weather than when laid in cold weather, the explanation being that the block being slightly softened by the heat, the edges compress somewhat under traffic, so as to make what is in effect a sheet pavement with practically very fine joints, while if laid in cold weather the block is brittle and the edges chip off slightly under the wheels, making the pavement more of the character of a vitrified brick pavement where the bricks have beveled edges. It is needless to say that the pavement laid in warm weather causes less noise than one laid in cold weather.

The railroad companies are finding considerable difficulty upon sheet asphalt streets in keeping the pavement in good condition close up to and against the rail. The Capital Traction Company and the Metropolitan Company both have the asphalt laid up to and between the tracks. The former has a 6-inch grooved rail, and owing to the vibration has to do a great deal of repairing, so that the maintenance of the pavement along its track is an expensive matter. The Metropolitan Company uses an 8-inch grooved rail; their Ninth street line has been in operation about two years, and their Georgetown line about fifteen months, and but little, if any repairs have been made as yet along the rails. The Columbia Company have brick along the outside of each rail and between the rails of each track. When the line was completed the outside bricks were laid at right angles to the rail and toothed into the asphalt, but they very promptly proved unsatisfactory and were taken up and relaid in two rows parallel to the rail; this was done more than two years ago and has given good results so far, the principal trouble encountered to date being due to the quality of the bricks.

The Capital Traction Company has on Pennsylvania avenue, between Fourteenth and Fifteenth streets, a double row of scoria blocks laid against the inside and the outside of each rail; these were put down about four months ago, and the time has not yet been sufficient to notice results.

It is the law that all street-car companies operating within the District are responsible for the pavement between and to a distance of 2 feet outside of their tracks, and all appropriations are made upon this basis. In case the company responsible for a pavement fails or neglects to keep it in repair the District is authorized to do the work, and must then proceed to recover the amount as follows:

In such case of the neglect or refusal of such railway company to perform the work required as aforesaid, the Commissioners of the District of Columbia shall issue certificates of indebtedness against the property, real or personal, of such railway company, which certificates shall bear interest at the rate of ten per centum per annum until paid, and which, until they are paid, shall remain and be a lien upon the property on or against which they are issued, together with the franchise of said company. And if the said certificates are not paid within one year the said Commissioners of the District of Columbia may proceed to sell the property against which they are issued, or so much thereof as may be necessary to pay the amount due, such sale to be first duly advertised daily for one week in some newspaper published in the city of Washington, and to be at public auction to the highest bidder.

This method works satisfactorily with such roads as are willing and able to keep their pavements in proper repair—that is, with those roads that do not need the law—but with some the matter has become so serious that it is necessary to ask for relief from Congress. The authorities of these roads pay no attention to the notices sent them to make the repairs necessary, and it is impossible to collect anything on the certificates of indebtedness, with the result that the pavements along these roads are rapidly passing from a badly dilapidated to a dangerous condition. Where the road is in the hands of a receiver, as is the case with two roads at present, the difficulties of making collection are vastly increased. As a remedy for this state of affairs, I would propose a law by Congress requiring each street-car company operating within the District limits to deposit with the collector of taxes a certain per cent of its gross income, say 4 per cent, until this deposit reached a sum amounting to $600 per mile of single track within the district, this sum to be at the disposal of the Commissioners for pavement repairs and to be deposited with the Treasurer of the United States and held by him in the same manner as the guaranty of 10 per cent retained upon contracts is now held; that is, if the railroad authorities so elect, the amount can be invested in bonds the interest on which will be payable to the company, and upon rendition of bill for work done payment in cash can be made by the company, thus leaving the fund invested intact. If the company failed to pay in cash the bill rendered, sufficient bonds could be sold to cover the amount, and whenever the fund credited to any road was thus reduced to a sum equal to $500 per mile of track the company should be again required to deposit 4 per cent of its gross income until the amount of $600 per mile had been reached. In case the company failed at any time to deposit this 4 per cent when required authority should devolve upon the Commissioners to enforce its collection. When a track is owned by more than one company, the amount of $600 per mile to be deposited for this portion should be divided proportionately among the companies using it.

It is believed that this system, or one similar to it, would enable the District authorities to keep the pavement between and adjacent

to street railway tracks in proper condition, while the present method is so ineffective that some of the streets near the center of the city have become grass-grown owing to the traffic having been diverted from them on account of the bad condition of the pavement along the car tracks.

The law is needed as much for the companies occupying the county roads as for those running through paved streets, for the necessity of keeping in good condition the driveway between and adjacent to the tracks is as important upon these roads as upon the city streets, and in many cases even more so, as there is no adjacent parallel street or road, free from tracks, that can be used. Upon nearly all of the main highways occupied by street car or trolley lines the rails project above the surface of the road to such an extent that driving across the tracks is impossible, and the condition of affairs amounts to a practical confiscation of that portion of the road by the company.

The attorney for the District has given an opinion to the effect that the Commissioners have no power to compel a street railway company to remove a piece of abandoned track upon one of the streets or to remove it themselves. Legislation remedying this state of affairs should if possible be obtained.

It has been the custom of Congress for several years past to make an appropriation for "Repairs to concrete pavements" and also one for "Current repairs to streets, avenues, and alleys," and I would most strongly recommend that these two be hereafter combined into one appropriation under the latter title. The latter, as hitherto made, has been much the smaller and entirely inadequate for the work dependent upon it, and the result has been that much has been left undone that could have been readily done had the pavement happened to be asphalt instead of some other material. If this change were made, repairs could be made in the order of their necessity and importance, a thing that is now impossible. Several cases have occurred where it was necessary to lay a new sidewalk under the assessment system because there were no funds to repair an old one, and the laying of the new walk was the only legal way of repairing the old one.

ALLEYS.

All pavements laid in alleys during the year were of vitrified brick or asphalt block, generally upon a gravel base, though where the traffic was exceptionally heavy a concrete base was used. The brick appears to make the better pavement for this use, as it resists the strong liquids and other deleterious matter which find their way to an alley better than the asphalt of the blocks, which do not wear so well here as in the streets. Where, however, a majority of the property owners interested have requested that the alley be paved with asphalt block that material has been used.

Attention was called in my report of last year to the undesirable condition resulting from the early unsystematic laying out of alleys and to the bad effects upon the sewer system in particular. More care has been exercised by the proper department during the past year than ever before to avoid unfavorable subdivisions, and the good effect has been marked; but if a suitable law were enacted for condemning alleys, a thing that is now lacking, considerable improvement could be obtained in several blocks, and in some cases the cost of condemnation, it is believed, would be less than the cost of the construction of a sewer solely to cary off the rainwater, which would be unnecessary with a properly shaped alley. The present law is slow of operation,

defective in not giving the Commissioners authority to originate action and in some other respects, and is expensive. A suitable law should be passed at as early a date as possible.

SIDEWALKS.

Cement and brick walks were the only kinds laid during the year. A number of plank walks upon the outlying streets and roads were removed, owing to their dangerous condition, and orders were given not to put down any more of this material. Experiments are now being made with different kinds of cheap walks, and it is believed that something satisfactory for use, at small cost, among the more important outlying roads will be in use before the season is over.

The changes made in cement walks during the year have been in reducing the size of the blocks, so that none are now permitted larger than 3½ feet in any dimension, and in using gravel for the concrete body, to the exclusion of broken stone. The cutting of the joints has been greatly facilitated by this change, and it is believed a better result is thus obtained, and the price has also been materially reduced.

The new curb used has been 8 by 8 inches and 6 by 20 inches granite. Cement curb is being made, which, it is believed, can be used with economy on residence streets subject only to light travel, though its manufacture is too recent to permit the stating of results.

ROADS.

The county roads of the District were kept in as good repair during the year as the funds in the possession of the department would permit, but the amount usually appropriated is not sufficient to keep all the roads in good condition and also put in proper shape some of the longer and more heavily traveled thoroughfares, which have been gradually worn out, so that a renewal of their surface throughout their whole length is needed. An instance of this is the Canal road, running from M street, in West Washington, along the river to the Chain Bridge. It was macadamized some years ago and still has a good base, but the surface has entirely worn off, leaving the roadway very uneven and also very rough from projecting stones. To put a proper surface upon this road will cost about $12,000, an amount that can not be spared to do this work when only $40,000 is the total sum appropriated for all the roads and streets not paved with asphalt outside of Florida avenue, and it is already impossible to keep them in proper shape with that sum. Hamilton road is in the same condition, and it, the Canal road, Seventh Street road, and Bladensburg road all require special appropriations, and I would recommend that they be procured if possible. Wisconsin avenue or Tennallytown road, Bennings road, and Connecticut avenue extended are also in a most dilapidated condition and a source of constant complaint; in short, the main thoroughfares are, without exception, in an extremely bad state, and the minor roads are rapidly approaching the same condition in spite of all that can be done to prevent it with the funds available.

Following the custom of former appropriation bills, the appropriation for county roads has been applied to the same geographical limits as when Washington was much smaller, with the result that as the city grew suburban street after street was added to an appropriation that was originally intended for county roads alone, and as the travel over the roads and the wear and tear upon them has increased owing to the growth of population the funds available for keeping them in repair have gradually been practically diminished by requiring them to be applied to an increasing mileage.

In 1877 there were 29.3 miles of suburban streets; in 1887 there were 39.3 miles of suburban streets; in 1897 there are 71.9 miles of suburban streets.

The appropriation for this year is $40,000 for keeping all the county roads and suburban streets in repair. The appropriation for 1887 was $40,000. The population of the District and surrounding country and suburban towns has largely increased during the past ten years, with the result that the county roads have had vastly heavier traffic than formerly, while the same amount of money has had to take care of them under this increased wear, and has had to be applied also to more than 30 miles of new streets.

The difficulty of keeping these county roads in repair under these conditions is quite evident.

I would also request that an estimate be presented to Congress for $4,000 for the purpose of sprinkling county roads and suburban streets. This work of sprinkling should be done on account of the convenience to the public, who now suffer greatly under the present dusty state of the roads, and is also generally needed as a matter of keeping the roads in proper repair. A road properly sprinkled wears much longer and remains in good condition a much greater length of time than one which is not sprinkled. Many of our principal roads, owing to the amount of dust upon them during the past year, have afforded anything but pleasant driving.

BRIDGES.

The accompanying report of Mr. George H. Bailey states what has been done in this department during the past year. There have been two appropriations, "For ordinary care of bridges" and "For construction and repair of bridges." These two are practically identical in purpose, and it is recommended that they be consolidated hereafter under one heading entitled "Construction, repair, and care of bridges." It would save much clerical work in the office without interfering in any way with the work in the field.

An increased appropriation is greatly needed for this purpose. Formerly the amount allowed for the bridges of the District was $25,000 a year. The recent appropriations have not been sufficient to keep the bridges in proper repair and they are rapidly deteriorating.

An instance of the manner in which this insufficiency of funds operates is the Aqueduct Bridge. Recently the top of the joists to which the flooring is fastened became so rotten that the nails would no longer hold. The funds in the possession of the department were not sufficient to purchase new timber for joists, so that they had to be turned over with the rotten side down. This gave holding power for the nails, but the flooring system is of course weaker than it should be, and it is only a short time before new joists will have to be provided throughout the entire bridge. The result will then be that some other bridge will have to seriously suffer. Several of the bridges upon the county roads have become so weak in the flooring system that it is impossible to run the steam road roller employed upon the county roads over them.

The Navy-Yard Bridge across the Eastern Branch has been recognized for several years to be in a weak condition and totally inadequate for the travel put upon it, and at present a chartered railway company is unable to operate its cars with safety across it. Estimates have been submitted for several years past for a new structure near the site of the present bridge, at an estimated cost of $250,000, and I would urgently recommend that an appropriation for this purpose be

secured, if possible, and authority granted the Commissioners to sell, to use at other localities, or to dispose of the old bridge in a manner considered most advantageous to the District.

The plan for the new bridge contemplates a steel-girder bridge with spans of approximately 50 feet and a clearance of 20 feet at low tide, which will readily permit tugs and barges to pass. The stream has become so contracted that sailing craft no longer attempt to use the portion of the river above the bridge; but a draw could be inserted if found advisable. Several of the spans of the old bridge could be very advantageously used in bridging Rock Creek upon proposed roads and driveways in Rock Creek Park; the length of span is believed to be just about what could be used.

SEWERS.

During the year 20,862 feet, or 3.95 miles, of main sewer were built and 71,545 feet, or 13.55 miles, of new pipe sewers were laid, while 12,053 feet, or 2.28 miles, of defective pipe sewers laid under the old board of public works were replaced. This made the total length of main sewers in the District on June 30 to be 429,569 feet, or 81.36 miles, and of pipe sewers (i. e., sewers 24 inches in diameter or smaller) to be 1,499,811 feet, or 284.06 miles.

The work has been done in the same manner as formerly; that exceeding $1,000 in cost being performed under contract, as required by law, while work involving less than that sum has been done by hired labor. The eight-hour day has been observed upon all District work under this department, whether by contract or day labor. On work of the latter class the rates of pay were as follows:

Foreman, $4; laborers, first class, $1.75; second class, $1.50; masons and bricklayers, $4; watchmen, $1.50; water boys, 75 cents; 2-horse wagon, with driver, $3.50; 1-horse cart, with driver, $1.75.

The materials for all sewers built by hired labor were purchased under contract in large quantities and stored until needed in the several property yards.

The prices paid during the year were as follows:

24-inch pipe	$0.50	24 by 6 inch Y-pipe	$2.20
21-inch pipe	.35	21 by 6 inch	1.57
18-inch pipe	.26	18 by 6 inch	1.15
15-inch pipe	.19	15 by 6 inch	.85
12-inch pipe	.13	12 by 6 inch	.58
10-inch pipe	.10	10 by 6 inch	.45
8-inch pipe	.07	8 by 6 inch	.30
6-inch pipe	.05	6-inch bends	.15
Natural cement	.75	Portland cement	2.09
Concrete sand	.45	Manhole frame	2.90
Screened sand	.65	Manhole cover	1.50
Screened pebbles	.59	Manhole irons	.09½
No. 1 alley grate and frame	7.00	No. 2 alley grate and frame	4.50
Invert block	.39½	Vitrified sewer brick	15.50
Sewer brick at brick company yards	5.90		

Under these conditions the cost of the different sizes of sewers was as shown in Table 12 of the report of Mr. McComb, superintendent of sewers, page —.

The formulas used in computing the sizes of the sewers have remained the same as for several years past. These formulas and the methods of construction were explained in detail in my report for the year ending June 30, 1895, and are therefore not repeated here.

Some improvement has been made in the cleaning of catch basins

by using large iron carts hauled by horses condemned by the fire department and turned over without cost to the sewer department, instead of employing hired carts. A saving of about $5 per day has resulted from the use of the three large iron carts now employed, and by equipping all the cleaning gangs with them it is believed that this amount will be nearly doubled. A graphical table showing the work of basin cleaning is inserted, which illustrates the work done during the year.

During the year considerable progress was made upon the Rock Creek intercepting sewer, and also upon the F street portion of the Easby Point intercepting sewer. When these two interceptors are finished, which will be early during the present working season, all will have been accomplished for the sewage disposal of the city that is possible prior to the completion of the sewage-disposal system, with the exception of the building of the east side intercepting sewer. The James Creek Canal and the B Street Canal must remain the polluted ponds they now are, and the insanitary condition along the Anacostia and the entire eastern front of the city must continue until the sewage-disposal system is completed. No further relief will be possible.

Attention has been so frequently called to this detrimental condition that it is not believed advisable to repeat here what has been so frequently stated before, but I would urge that efforts be made to make the Members of Congress and prominent citizens of the city personally acquainted with the highly insanitary state of affairs which exists along the river front and to within 800 yards of the White House itself. It is believed that the people in general and the Members of Congress are unacquainted with the actual condition of affairs, or some success would have met with the Commissioners' efforts to have it remedied. In case an appropriation can not be secured directly, I would strongly recommend the issuance of bonds for the purpose.

Mr. McComb, superintendent of sewers, makes a recommendation in his report that assessment for sewers be made upon the area of the lot instead of upon its frontage, as at present. With this recommendation I can not concur, because the building space depends, so far as sewers are concerned, upon frontage, and not upon depth. A lot 20 feet wide and 40 feet deep is likely to require as much sewer service as one 20 feet wide and 100 feet deep, and is also likely to require as much as a lot 20 feet wide and 200 feet deep, only one sewer being ordinarily provided for one lot. It is not denied that in the case of a few oblique-cornered lots the present law causes somewhat heavy charges, but these exceptions are so few that I do not believe it advisable to attempt to change a law which has stood the test of the courts and is believed to be the fairest that has yet been enacted.

The act providing a permanent form of government for the District of Columbia requires a contractor doing work for the District to give bond equal to the estimated cost of doing the work under the contract. This, under a continuing appropriation, causes, it is believed, considerable disadvantage to the District and increases the expense of the work. On the Tiber Creek and New Jersey avenue intercepting sewer there is a very good illustration of the point. Congress made an appropriation of $50,000 for beginning this work, and authorized the Commissioners to enter into a contract for the portion between the foot of New Jersey avenue and the Capitol Grounds, at a cost not to exceed $500,000. The successful bidder has entered into a contract with a bond equal to the estimated cost of his work, which amounts to $289,000. This bond will have to be carried by the contractor for several

years. The result is that private parties are not willing to give their personal bonds upon a contract of indefinite length, and nearly all the contractors upon these continuing-appropriation contracts have presented surety companies as bondsmen. These companies charge for the bonds, and the result is that the District has to pay for the carrying of the heavy bond of the contractor, and thus pays several thousand dollars more than it would have to if the Commissioners were allowed to accept bond equal to the amount appropriated for each season's work, or a percentage of this amount. I would recommend that authority be secured upon continuing-appropriation contracts to accept a bond for each season's work separately, and also that a bond be required from contractors varying from two-thirds to the whole cost of the work, in the discretion of the Commissioners. It is believed that in this manner several thousand dollars can be saved to the District each year.

Considerable difficulty having been experienced at times in obtaining information concerning some of the earlier sewers, no authentic records of them having been kept, the following brief history and statement of authority for their construction has been prepared under my direction by Mr. McComb. (See pages 103 to 149.)

It is hoped that this information being rendered accessible will be the means of inducing many of the citizens of Washington who took a prominent part in the former systems of government for the District, to assist the office by facts from their memory and private papers to gather more of the missing data. The list has been arranged by streets in periods, as that seemed the best for ready reference.

PLUMBING DEPARTMENT.

The work done by this department is shown in the appended report of Mr. Charles B. Ball, inspector of plumbing. The service rendered by this office seems to be appreciated more and more each year by the public, and it is believed that the efficiency of the service rendered has been gradually improved.

TESTING OF ENGINEERING MATERIALS.

The work performed in this office is shown in the appended report of Mr. A. W. Dow, inspector of asphalt and cements. Mr. Dow prepared a paper last fall for presentation to the American Society of Municipal Improvements which it is believed can be inserted here with advantage, and it is annexed to his report.

OFFICE OF THE SUPERINTENDENT OF PROPERTY.

The work done in this branch of the office is set forth in the report of Mr. L. T. Boiseau, superintendent of property.

Article 1 of section 5 of the act providing a permanent form of government for the District of Columbia requires that repairs to streets, avenues, alleys, or sewers, and new constructions exceeding $1,000 in cost shall be made under contract.

Under this clause it has been the ruling of the Treasury Department that supplies amounting in cost to $1,000 or over must be purchased under contract also. The District does a great deal of work by hired labor, for which material has to be purchased in addition to that supplied to contractors, and with the $1,000 limit which has been imposed by the ruling of the Treasury Department serious inconvenience has at times been caused. It has upon some occasions led

to combinations of bidders, knowing that the District authorities were bound down by the ruling of the Treasury Department in this manner. An instance of this occurred in 1893, when bids were asked for sewer pipe. The bids as received were as follows:

Bidder.	Pipe (per linear foot).							
	6-inch.	8-inch.	10-inch.	12-inch.	15-inch.	18-inch.	21-inch	24-inch.
Potomac Terra Cotta Co.*a*	.....	.....	$0.16	$0.20	$0.30	$0.41	$0.61	$0.90
T. Sommerville & Sons	$0.07½	$0.12	.17	.21	.30½	.42	.62	.92½
American Sewer Pipe Co.*a*	.....	.....	.....	.21	.31	.....	.....	.....
McMahan, Porter & Co.*a*	.08	.12½	.16½	.21½	.31½	.42½	.65	.95
State Line Fire Brick and Sewer Pipe Co	.07½	.11 5/16	.16½	.21½	.31½	.42½	.63	.92
Freeman Fire Clay Co.*a*	.....	.....	.....	.20	.31	.41	.....	.91
T. Sommerville & Sons*a*	.10	.15	.22	.24	.43	.56	.82	.99
State Line Fire Brick and Sewer Pipe Co	.10½	.17	.22	.25	.40	.56	.88	1.08
Freeman Fire Clay Co	.....	.....	.....	.26	.42	.52	.84	1.02
Union Sewer Pipe Co	.....	.....	.....	.23	.40	.55	.....	.....
Potomac Terra Cotta Co	.11	.16	.21	.27	.38	.55	.83	1.00
McMahan, Porter & Co	.....	.....	.....	.27½	.41	.58	.85	1.05

Bidder.	Y-branches (each).						
	8 by 6.	10 by 6.	12 by 6.	15 by 6.	18 by 6.	21 by 6.	24 by 6.
Potomac Terra Cotta Co.*a*	.....	$0.70	$0.92	$1.38	$1.90	$2.75	$3.75
T. Sommerville & Sons	$0.60	.77	.97	1.43	1.94	2.95	3.95
American Sewer Pipe Co.*a*	.....	.....	.95	1.40	.....	.....	.....
McMahan, Porter & Co.*a*	.62	.75	.96	1.40½	1.91½	2.90	3.85
State Line Fire Brick and Sewer Pipe Co	.31	.44	.96	1.41	1.92	3.00	3.66
Freeman Fire Clay Co.*a*	.....	.....	.93	1.39	1.90	.....	.....
T. Sommerville & Sons*a*	.66	.....	.....	.....	.....	.....	.....
State Line Fire Brick and Sewer Pipe Co	.70	.97	1.16	1.80	2.50	3.85	4.75
Freeman Fire Clay Co	.....	.....	1.20	1.82	2.49	3.75	4.60
Union Sewer Pipe Co	.....	.....	1.25	1.83	2.50	.....	.....
Potomac Terra Cotta Co	.66	.95	1.25	1.80	2.47	3.60	4.65
McMahan, Porter & Co	.....	.....	1.20	1.85	2.56	3.73	4.63

Bidder.	6-inch ¼-bends (each).	6-inch ⅛-bends (each).	Vitrified sewer blocks (per linear foot).	Vitrified sewer bricks (per M).		Date of opening.
				No. 1.	No. 2.	
A. Lamond	.....	.....	$0.50	.....	$16.50	July 16, 1892
New England Steam Brick Co	.....	.....	.....	.....	.....	
Potomac Terra Cotta Co.*a*	.....	.....	.....	.....	.....	
T. Somerville & Sons	$0.27	$0.27	.....	.....	.....	
American Sewer Pipe Co.*a*	.....	.....	.....	.....	.....	
McMahan, Porter & Co.*a*	.29	.29	.60	$25.00	19.00	
State Line Fire Brick and Sewer Pipe Co	.27½	.27½	.....	18.50	.....	
Freeman Fire Clay Co.*a*	.....	.....	.....	.....	.....	
T. Somerville & Sons*a*	.36	.....	.....	.....	.....	June 3, 1893*h*
State Line Fire Brick and Sewer Pipe Co	.38	.....	1.00	18.80	.....	
Freeman Fire Clay Co	.....	.....	.....	.....	.....	
Union Sewer Pipe Co	.....	.....	.....	.....	.....	
Potomac Terra Cotta Co	.36	.....	.....	.....	.....	
McMahan, Porter & Co	.....	.....	.60	.....	*b* 17.75 *c* 17.90 *d* 18.85 *e* 17.35	
J. A. Hayden	.....	.....	.....	.....		
A. Lamond	.....	.....	.50	.....	.....	
Savage Fire Brick Co	.....	.....	.....	.....	*f* 16.45 *g* 16.95 17.25	

a Bid accepted. *b* Ordinary. *c* Repressed.
d Large size. *e* Small size. *f* Class 1.
g Class 2. *h* All bids rejected on account of prices being too high.

Captain Derby, then in charge of the office, managed, however, by personal efforts to secure pipe in open market from McMahan, Porter & Co., of New Cumberland, W. Va., at the following prices: Pipe, 6-inch, $0.0675; 8-inch, $0.108; 10-inch, $0.144; 12-inch, $0.18; 15-inch, $0.27; 18-inch, $0.369; 21-inch, $0.549, and 24-inch, $0.81; Y-branches, 8 by 6, $0.57; 10 by 6, $0.665; 12 by 6, $0.874; 15 by 6, $1.311; 18 by 6, $1.805; 21 by 6, $2.613; 24 by 6, $3.563.

Trouble was afterwards encountered with the Treasury Department in regard to the purchase of this pipe, that Department ruling that as the amount of the purchase exceeded $1,000 it should have been made by contract instead of being purchased in open market, and considerable difficulty was encountered in having the vouchers passed and the account paid. It is recognized that it is ordinarily more advantageous to purchase large amounts of material under contract than in open market, but the interpretation placed upon article 1 of section 5 by the Treasury Department seems forced, and I would recommend that an effort be made to secure a change in the ruling of that Department, and if not successful that the necessary legislation to afford relief be secured from Congress.

Very respectfully,

LANSING H. BEACH,
Captain, Corps of Engineers.

Capt. W. M. BLACK,
Corps of Engineers, U. S. A.,
Engineer Commissioner, District of Columbia.

Statement of employees temporarily employed, showing appropriation from which paid, for fiscal year 1896–97.

Class.	Number.	Current repairs to streets, avenues, and alleys.	Assessment and permit work.	Replacing sidewalks and curbs around public reservations.	Repairs to concrete pavements.	Improvements and repairs.
Inspectors	6	$5.50	$753.37	$18.63	$3,133.00	.....
Foremen	5	2,485.00	2,340.00	54.00	99.00	$108.00
Other employees	291	15,313.40	18,009.86	411.69	524.69	632.10
Total	302	17,803.90	21,103.23	484.32	3,756.69	740.10

Class.	Number.	Repairs to county roads.	Yale, etc., streets.	Appropriation for P street.	Rock Creek and B street intercepting sewer.	High-service distribution.
Inspectors	6	.....	.....	.....	.....	.....
Foremen	5	.....	$14.00	$28.00	$20.00	$8.00
Other employees	291	$61.37	87.42	106.25	111.50	35.00
Total	302	61.37	101.42	134.25	131.50	43.00

Class.	Number.	Public schools.	Engine houses.	Market houses.	Whole cost of work.	Total.
Inspectors	6	.....	.....	.....	$60.00	$3,970.50
Foremen	5	$20.00	$48.00	$6.00	2.00	5,232.00
Other employees	291	100.45	205.74	26.25	9.00	35,634.72
Total	302	120.45	253.74	32.25	71.00	44,837.22

REPORT OF THE COMPUTING ENGINEER.

WASHINGTON, *July 20, 1897.*

SIR: I have the honor to submit the following as the operations of this office for the year ending June 30, 1897:

The following summary shows the amount of work done on streets and avenues, under the appropriation for "Improvements and repairs:"

Asphalt on 6-inch concrete base	square yards	44,368.65
Asphalt on 8-inch concrete base	do	543.26
Asphalt block	do	9,271.91
Macadam roadway	do	5,333.94
Gravel roadway	do	16,065.05
Grading (ordinary)	cubic yards	43,772
Grading (Macadam)	do	3,853.88
Old cobble removed	square yards	19,254.31
Old curb removed	linear feet	9,703.40
Curb reset	do	12,665.29
Curb set	do	15,410.66
Brick sidewalks relaid	square yards	5,670
Vitrified brick gutters	do	6,216.24
Cobble gutters and crossings	do	5,722.17

The details of this work are shown by the annexed schedule, marked A. This work was done by contract, excepting a small amount of curb setting and relaying brick sidewalks, which was done by day labor employed by the superintendent of streets and paid for out of the appropriation for "Improvements and repairs."

The following prices have been paid:

Sheet asphalt on 8-inch hydraulic base, exclusive of grading, per square yard	$1.83
Sheet asphalt on 6-inch hydraulic base, exclusive of grading, per square yard	1.63
Asphalt block on gravel base	1.77
Macadam roadway	.77½
Gravel roadway	$0.10½ to .13
Setting 6 by 20 granite curb, including haul, per linear foot	.18
Setting 8 by 8 granite curb on concrete base, per linear foot	.35
Laying vitrified block gutters on concrete base, per square yard	1.25
Cost of vitrified block $20.85 to $21.75 per M, making cost of gutters complete, per square yard	$2.12 to 2.16
6 by 20 granite curb, delivered at property yard, per linear foot:	
Straight	.65
Circular	.82
8 by 8 granite curb, delivered at property yard, per linear foot:	
Straight	.52½
Circular	.67½
Laying cobble gutters, per square yard	$0.17 to .18
Cobble taken up and moved to property yard, per square yard	.12
Curb taken up and moved to property yard, per linear foot	.08
Grading on paved streets, ordinary, per cubic yard	.35
Grading on paved streets, Macadam, per cubic yard	.50
Grading on graded and regulated streets, per cubic yard	.14
Overhaul, per cubic yard, per 500 feet over 2,500	.02½

WORK DONE UNDER APPROPRIATION FOR "CONSTRUCTION OF COUNTY ROADS, 1897."

Sherman avenue.—275 linear feet of wall, average height 8 feet; 675 linear feet post and top-rail fence wire stringers; 15,000 cubic yards grading; 3 houses moved where land was donated. Appropriation, $10,000.

Columbia road and streets in Meridian Hill.—22,000 cubic yards grading; repairs to gravel roadways. Appropriation, $5,000.

Massachusetts avenue extended.—54,000 cubic yards grading. Appropriation, $10,000.

Albemarle street.—3,000 cubic yards grading; land purchased. Appropriation, $9,000.

Illinois avenue.—32,000 cubic yards grading. Appropriation, $5,000.

Pierce and High streets.—11,500 cubic yards grading; blind drain, 350 feet by 3 by 1½ feet; 3,400 square yards gravel roadway; 500 square yards cobble gutter; 540 linear feet bluestone curb set; 700 square yards brick sidewalk laid. Appropriation, $3,000.

Connecticut avenue extended.—42,000 cubic yards grading; 1,100 square yards cobble gutter laid; 1,100 square yards cobble gutter relaid; banks sown with grass seed and honeysuckle planted; miscellaneous repairs. Appropriation, $10,000.

Road connecting Chevy Chase Circle with Broad Branch road.—20,000 cubic yards grading; 1,234 square yards cobble gutter laid; 1,467 square yards Macadam roadway laid; 90 feet terra-cotta pipe. Appropriation, $5,000.

Yale, Bismarck, etc., streets.—42,000 cubic yards grading; 4,235 square yards cobble gutter laid; 16,000 square yards gravel roadway; 2,793 linear feet granite curb set. Appropriation, $17,000.

Table B shows the amount of work under appropriation for "Renewal, resurfacing, and repairs to concrete pavements." On several of the streets originally laid with coal-tar and bituminous-base pavements they were found to be so rotten and so rough by frequent resurfacing in places that the only effectual mode of repair was to remove the old pavement and lay new asphalt pavements on hydraulic base. In many other streets the coal-tar pavement has been partially or entirely removed and replaced by asphalt in order to preserve the proper grade and crown to the roadway. N street, between Twenty-eighth and Thirtieth, and Fourth street SE., between East Capitol and B, originally laid with asphalt blocks in 1882 and 1883, have been surfaced with asphalt.

The work done at cost of the various street railroad companies, consisting principally of paving the space of 2 feet adjacent to the tracks, is shown by Table C.

Tables D, E, and F are summary and detailed statements giving the square yards and mileage of street pavements to July 1, 1897.

Respectfully submitted.

C. B. HUNT, *Computing Engineer.*

The ENGINEER COMMISSIONER OF THE DISTRICT OF COLUMBIA.
(Through Capt. L. H. Beach.)

Street railways in the District of Columbia, July, 1897.

Name of company.	Motive power.	Mileage operated.			
		Tracks owned by company.		Tracks owned by other companies.	
		Double.	Single.	Double.	Single.
Capital Traction (Rock Creek and Washington and Georgetown).	Underground and overhead electric and cable.	16.33	.....	.....	.....
Metropolitan	Underground electric	10.21	3.70	.....	.....
Columbia	Cable	2.86	.....	.....	.....
Eckington and Soldiers' Home	Overhead electric and horse.	7.13	1.57	.89	.23
Belt Line	Horse	5.90	1.22	.08	.....
Brightwood	Overhead electric	4.60	1.90	.....	.....
Tennallytown	do	4.30	.....	.....	.....
Anacostia and Potomac River	Horse	5.42	.23	1.27	.....
Washington and Great Falls	Overhead electric	3.70	.....	.....	.....
Washington, Alexandria, and Mount Vernon.	Underground electric	a.90	.33	.....	.....
Capital	Underground and overhead electric.	.....	1.32	1.22	.20
Maryland and Washington	Overhead electric	b2.28	.....	.....	.....
Total	.....	63.63	10.27	3.46	.43

a New electric construction of Belt Line route on Fourteenth street.
b Incomplete. Capital Railway adapted Anacostia track to electric system.

TABLE B.—*Repairs to concrete pavements, year ending June 30, 1897.*

Locality.	Year laid.	Square yards.	Contract work.	Extra work.	Total cost.	Original pavement.
L street NW., Twelfth to Fourteenth	1877	3,931.29	$6,060.25	$640.01	$6,700.26	Coal tar.
Eighteenth street NW., M to Massachusetts avenue.	1873	4,606.42	7,468.09	741.17	8,209.26	Do.
H street NW., Fifteenth to Vermont avenue.	1874	2,421.63	5,954.59	410.72	6,365.31	Do.
Connecticut avenue NW., Q to R	1873	3,205.91	5,608.28	374.30	5,982.58	Do.
F street NW., Nineteenth to Twenty-first.	1873	4,047.98	6,514.81	525.38	7,040.19	Do.
P street NW., Twenty-second to bridge and west of bridge.	1872	930.67	1,854.52	110.16	1,964.68	Do.
N street NW., Twenty-eighth to Thirtieth.	1882	1,604.39	2,588.47	8.28	2,596.75	Asphalt block, surfaced with asphalt.
C street SW., First to Sixth	1887	7,851.79	17,383.04	2,304.36	19,687.40	Coal tar.
E street SW., Second to Third	1887	1,510.83	3,219.61	548.63	3,768.24	Do.
H street SW., Third to Four-and-a-half.	1887	2,388.04	5,006.37	874.28	5,880.65	Do.
First street E., between B street N. and B street S.	1873	6,842.85	14,941.36	1,178.71	16,120.07	Do.
Fourth street SE., East Capitol to Pennsylvania avenue.	1883	3,445.94	5,702.68	47.95	5,749.77	Asphalt block, surfaced with asphalt.
Ninth street NW., F to G, east side	1875	595.11	1,107.45	131.85	1,239.30	Coal tar.
Sixteenth street, intersection of U	1883	282.47	631.85	.....	631.85	Asphalt.
Phelps place, Leroy to California	.....	1,003.80	1,942.16	198.91	2,141.07	Coal tar, originally laid at private expense.
Eleventh street NW., H to I	1875	190.08	237.60	.....	237.60	Coal tar, vitrified block gutters.
					94,314.98	
Minor repairs on various streets					44,135.07	
Sewer traps, water boxes, tools, etc					1,375.80	
Inspection, office expenses, etc					6,283.34	
Vitrified block					3,203.35	
					149,312.54	

TABLE C.—*Work done at cost of railroad companies, year ending June 30, 1897.*

Company.	Street.	From—	To—	Amount.
Capital Traction	M, NW	Twenty-eighth	Thirty-first	$13.05
	Twenty-sixth, NW	Pennsylvania avenue.	M	6.16
	M, NW	Thirty-third	Thirty-sixth	950.05
	U, NW	Sixteenth	Eighteenth	1,180.34
	Fourteenth, NW	U	Euclid	1.90
	Florida avenue	Sixth	Seventh	5.60
	Eighteenth	Florida avenue	Columbia road	998.22
	First and Maryland avenue SW.	.....	.....	112.52
	L, SE., near Eighth	.....	.....	4.62
	U, NW	Ninth	Tenth	54.04
	M, NW	Bridge	Thirty-first	52.23
	Do	Thirty-first	Thirty-second	171.95
	Pennsylvania avenue and Fifth.	.....	.....	5.43
				3,506.21
Eckington and Soldiers' Home.	Fifth, NW	G	New York avenue	143.73
	G, NW	Fifth	Ninth	92.49
	Do	Tenth	Thirteenth	92.22
	First and E, NW	.....	.....	5.11
	Sixth and G, NW	.....	.....	5.36
	North Capitol	G	I	6.84
	G, NW	North Capitol	New Jersey avenue	4.87
	D, NE	Maryland avenue	Ninth	434.05
	Fifth and I, NW., intersection.	.....	.....	2.71
	Fifth, NW	G	K	13.82
	G, NW	Fifth to Eleventh	Seventh to Fifteenth.	144.44
	Do	Ninth	Eleventh	17.39
	Do	Fifth	Seventh	74.94
	Fifth, NW	G	New York avenue	209.18
	Ninth and G, intersection.	.....	.....	3.54
				1,250.08

of street impro

NORTH

Contract work.			
Old curb removed.	Straigh curb reset.	Total cost of street.	Name of contractor.
Linear feet.	*Linear feet.*		
737	31	$3,381.75	Barber Asphalt Paving Co.
34.50	10	5,507.62	Do.
974	46	3,959.73	Do.
1,071	153	13,402.99	Do.
45.17	40	2,671.56	Do.
70	------	5,304.53	Do.
----------	15	10,742.27	Do.
842.03	42	5,124.62	Do.

SOUTH

360	2,107	$8,688.50	Washington Asphalt Block and Tile Co.
388	2,439	10,492.93	Do.
173	458	2,832.71	Barber Asphalt Paving Co.

SOUTH

70	986	$3,553.35	Barber Asphalt Paving Co.
60	115	1,017.24	Washington Asphalt Block and Tile Co.
----------	----------	1,519.09	James Frawley.
----------	230	6,193.91	Do.
1,910	119	9,351.81	Barber Asphalt Paving Co.
375	57	2,921.67	Do.
----------	----------	5,154.82	Washington Asphalt Block and Tile Co.
914	------	----------	Barber Asphalt Paving Co.

NORTH

165	1,486	$16,788.00	Barber Asphalt Paving Co. Fred Fritz. M. F. Talty.
----------	----------	2,304.77	Barber Asphalt Paving Co.
61.60	564	7,224.45	Do.
509.2	34	4,257.20	Do.
782	150	6,788.18	James Frawley.
----------	----------	1,143.28	Barber Asphalt Paving Co.
18.90	711	2,724.13	Do.

GEORGE

106	2,219	$10,823.82	Barber Asphalt Paving Co.
37	431	1,926.08	Do.

b Inclu

TABLE C.—*Work done at cost of railroad companies, etc.*—Continued.

Company.	Street.	From—	To—	Amount.
nacostia and Potomac River.	Four-and-a-half and Missouri avenue.			$3.13
	C, SW., intersection Second and Canal.			194.30
	Second, SW	C	Virginia avenue	22.65
	Second and H, SW			2.47
				222.55
eorgetown and Tennallytown.	M	Thirty-first	Thirty-second	13.82
letropolitan	Fifth, NW	D	F	13.51
	East Capitol, south side.	Seventh	Eighth	5.06
	Connecticut avenue, west side, and square between S and Florida avenue, Twenty-first and Connecticut avenue.			55.01
	Seventeenth, NW	H	K	14.25
	H, NW	Fourteenth	Fifteenth	6.59
	Four-and-a-half and Missouri avenue NW.			4.94
	Louisiana avenue NW.	Third	Fifth	6.10
	H, NW	Fifteenth	Vermont avenue	1,092.66
	P, NW	Twenty-second	213.6 feet west of bridge.	420.34
	F, NW	Twelfth	Thirteenth	.84
	Connecticut avenue.	Q	R	419.20
	Fourteenth, NW	F	New York avenue	9.31
	Do	do	do	6.12
	Thirty-sixth and Prospect avenue, NW.			1.27
	Ninth and Pennsylvania avenue, NW.			2.15
	First, E	East Capitol	B, N	382.95
	Lincoln Park, north side, intersection Twelfth, NE.			2.45
	Ninth and U, NW			7.07
	Ninth, east side	F	G	165.68
	Florida avenue, intersection Connecticut avenue.			12.09
	Connecticut avenue.	M	Dupont Circle	1.24
				2,628.83
elt Line	First and F, NW., intersection.			5.60
	Fourth, NW	G	New York avenue	24.89
	G, NW	New Jersey avenue.	Fourth	8.32
	O, NW	Fourth	Eleventh	17.07
	Eleventh	G	K	44.56
	Eleventh and F., NW., intersection.			1.24
	Fourteenth and Pennsylvania avenue, NW., intersection.			43.64
	New Jersey avenue.	O	P	14.50
	O	Fourth	Eleventh	7.60
				167.42
olumbia	Fourth and Massachusetts avenue.			1.16
	New York avenue	Thirteenth	Fourteenth	9.10
	Tenth and New York avenue, NW.			4.45
				14.71

TABLE D.—*Statement of character and area of street pavements, July 1, 1897.*

[Square yards.]

Locality.	Asphalt.	Coal tar and concrete.	Granite.	Macadam.	Asphalt block.	Vitrified brick.	Cobble.	Unimproved.	Total.	Percentage of unimproved area.
Northwest	1,330,963	375,185	193,405	68,087	35,840	6,885	139,244	212,073	2,361,652	9
Southwest	108,660	20,050	238,468	25,441	27,393	.....	81,660	195,326	696,998	28
Southeast	127,359	3,154	44,614	107,178	117,757	.....	48,576	513,355	961,993	53.30
Northeast	174,935	11,482	19,131	52,256	131,080	.....	1,738	590,744	921,322	57.60
Georgetown	99,448	23,391	69,635	9,790	3,849	.....	27,708	52,833	286,654	18.43
Suburban	168,600	.....	26,281	128,847	2,633	.....	.....	.....	325,861	.....
Total	2,009,985	433,262	591,534	391,049	318,508	6,885	298,926	1,504,331	5,554,480	.....

TABLE E.—*Statement showing mileage of street pavements, July 1, 1897.*

Locality.	Asphalt.		Coal tar and concrete.		Granite.		Macadam.		Asphalt block.	
	Linear feet.	Miles.	Linear feet.	Miles.	Linear feet.	Miles.	Linear feet.	Miles.	Linear feet.	Miles.
Northwest	295,624	56	90,284	17.10	47,950	9.08	14,225	2.70	9,585	1.81
Southwest	25,426	4.81	6,271	1.19	58,170	11.01	4,023	.76	7,171	1.36
Southeast	34,975	6.62	870	.16	11,760	2.30	32,170	6.09	30,925	5.85
Northeast	46,060	8.72	2,140	.40	4,300	.80	10,562	2	26,760	5.07
Georgetown	26,980	5.11	7,080	1.34	22,087	4.17	2,700	.51	1,495	.28
Suburban	26,512	5.03	.....	.....	4,490	.85	25,980	4.92	701	.13

Locality.	Vitrified brick.		Cobble.		Unimproved.		Total.	
	Linear feet.	Miles.	Linear feet.	Miles.	Linear feet.	Miles.	Linear feet.	Miles.
Northwest	1,061	0.20	29,521	5.59	51,828	9.81	540,098	102.90
Southwest	.....	.....	18,423	3.50	50,196	9.50	169,080	32.14
Southeast	.....	.....	16,335	3.10	128,756	24.38	255,791	48.50
Northeast	.....	.....	780	.14	141,665	26.83	232,267	44
Georgetown	.....	.....	8,810	1.67	16,485	3.12	85,587	16.20
Suburban	.....	.....	.....	.....	.....	.....	57,743	10.93

TABLE F.—*Statement of character and extent of street pavements July 1, 1897.*

NORTHWEST.

Locality.	Carriageway.											Resurfaced; originally paved with—
	Length.	Width.	Asphalt.	Coal tar and concrete.	Granite.	Cobble and blue rock.	Macadam.	Asphalt block.	Gravel and unimproved.	Year paved.	Year resurfaced.	
	Feet.	*Feet.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*			
North Capitol street, from B (west side) to C	490	50	1,395							1883		
North Capitol street, from C (west side) to D	400	50							1,050			
North Capitol street, from D (west side) to E	400	50			1,198					1898		
North Capitol street, from E (west side) to Massachusetts avenue.	540	50		1,928						1889		
North Capitol street, from Massachusetts avenue (west side) to I street.	1,390	50	3,728							1887		
North Capitol street, from I (west side) to K	440	50	1,443							1889		
North Capitol street, from K (west side) to M	1,130	50	3,103							1892		
North Capitol street, from M (west side) to New York avenue.	500	50	1,103							1893		
North Capitol street, from New York avenue (west side) to O street.	445	50	852							1893		
North Capitol street, from O to Florida avenue	720	50							1,238			
Arthur street, between New Jersey avenue and First, B and C streets.	470	25						1,366		1886		
First street, from center of Botanical Garden to Pennsylvania avenue.	440		2,270							1883	1895	
First street, from Pennsylvania avenue to F street	2,240	56 / 40			7,215		*a* 527	590		1892 / 1879		
First street, from F to H	620	32			1,427					1882		
First street, from H to Defrees	170	32		700						1877		
First street, from Defrees to I	150	32			535					1882		
First street, from I to K	390	32	1,191							1890		
First street, from K to Pierce	686	32	3,051							1894		
First street, from Pierce to Florida avenue	2,504	32	*b* 1,158						7,791	1897		
Second street, from Pennsylvania avenue to Indiana avenue.	860	40			3,693					1891		
Second street, from Indiana avenue to I street	2,900	40	10,452							1891		
Kirby street, between First and Third, M and N	480	32							1,760			
Third street, from center of Botanical Garden to Pennsylvania avenue.	500					2,230				1881		

a Vitrified brick.

b Paved from O to P.

TABLE F.—*Statement of character and extent of street pavements July 1, 1897*—Continued.

NORTHWEST—Continued.

Locality.	Carriageway.											Resurfaced; originally paved with—
	Length.	Width.	Asphalt.	Coal tar and concrete.	Granite.	Cobble and blue rock.	Macadam.	Asphalt block.	Gravel and unimproved.	Year paved.	Year resurfaced.	
	Feet.	*Feet.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*			
Third street, from Pennsylvania avenue to D street	1,130	32			4,231					1880		
Third street, from intersection of D		32	436							1880		
Third street, from Indiana avenue to L street	3,260	40	16,359							1875	1883 1884	Coal tar.
Third street, from Indiana avenue to New York avenue	500	40	2,685							1875		
Third street, from New York avenue to P street	950	35	4,177							1893		
Third street, from P to Florida avenue	1,207	35							4,706			
Fourth street, from Indiana avenue to New York avenue.	3,610	32	3,573	10,719						1872	1878 1889 1891	Do.
Fourth street, from New York avenue to M street	230	32				647				1873		
Fourth street, from M to New Jersey avenue	1,170				2,401					1891		
Fourth street, from New Jersey avenue to Florida avenue.	1,530	30	5,594							1891		
Four-and-a-half street, from center of Mall to Pennsylvania avenue.	720	55		3,640						1886		
Four-and-a-half street, from Pennsylvania avenue to D street.	760	50						4,549		1889		
Fifth street, from D to G	1,240	46	3,341							1885	1894	
Fifth street, from G to New York avenue	960	32		7,389						1873	1887 1873	Do.
Fifth street, from New York avenue to O street	1,620	32	5,666							1879		
Fifth street, from O to Q	850	32	3,123							1889		
Fifth street, from Q to Florida avenue	1,360	32	4,436							1889		
Sixth street, from center of Mall to Missouri avenue	670	60				3,333						
Sixth street, from Missouri avenue to Louisiana avenue.	850	60	5,078							1885		
Sixth street, from Louisiana avenue to E street	550	32	791	2,196						1877	1883	Do.
Sixth street, from E to F	470	32	1,313							1878	1889	Asphalt.
Sixth street, from F to G	250	32			975					1880	1894	Surface asphalt binder.
Sixth street, from G to New York avenue	1,790	32 35		6,896						1887		
Sixth street, from New York avenue to Florida avenue	4,240	35	16,636							1880		
Madison street, between Sixth and Seventh, M and N	540	25	1,538							1889		

Marion street, between Sixth and Seventh, P and R	1,010	26	2,861							1889	
Wiltberger street, between Sixth and Seventh, S. and T.	500	20							1,780		
Seventh street, from center of Mall to Pennsylvania avenue.	11,500	51			4,328					1878	
Seventh street, from Pennsylvania avenue to D street	450	51	1,579							1879	
Seventh street, Market space to D (west side)	260				520						
Seventh street, from intersection of Louisiana avenue									3,214	1879	
Seventh street, from D to Q	5,870	49			18,465						
Seventh street, from Q to Florida avenue	1,860	51			3,902 3,816					1882 1889	Granite (west side) Granite (east side).
Seventh street, from intersection of E to Q					5,597					1877	
Eighth street, from Pennsylvania avenue to E street	700	51			3,653					1881	
Eighth street, from E to F	330	51	1,964							1877	1882 Coal tar.
Eighth street, from G to L	1,650	30	4,980							1883	
Eighth street, from L to N	1,070	30	3,610							1875	1890 Do.
Eighth street, from N to R	1,940	30	6,498							1888	
Eighth street, from R to S	530	30		2,063						1887	
Eighth street, from S to Florida avenue	920	30		3,624						1888	
Ninth street, from B to Pennsylvania avenue	500	51			2,260					1879	
Ninth street, from Pennsylvania avenue to P street	5,610	51	32,363							1892	1878 1885 1886 1892 1895 Do.
Ninth street, from P to Rhode Island avenue	670	51	1,538							1883	
Ninth street, from Rhode Island avenue to Florida avenue.	3,000	51	3,371							1884	
Ninth street, from P to Florida avenue		51	6,147							1875	
Columbia street, between Ninth and Tenth, Q and O				2,683						1873	
Opera square, between Ninth and Tenth streets, Pennsylvania avenue and Louisiana avenue.	480				784						
Tenth street, from B to Pennsylvania avenue	740	51			3,103					1872	
Tenth street, from Pennsylvania avenue to E street	580	32	1,353							1885	
Tenth street, from E to F	330	32			1,373					1879	
Tenth street, from F to G	300	32	955							1880	
Tenth street, from G to K	1,200	32	4,828							1875	1887 1890 Do.
Tenth street, from K to M	980	32	3,368							1880	
Tenth street, from M to O	1,020	32	3,443							1881	
Tenth street, from O to R	1,420	32	4,453							1883	
Tenth street, from R to S	530	32		1,992						1887	
Tenth street, from S to T	500	32	1,948							1891	
Tenth street, from T to U	520	32	2,588							1895	
Tenth street, from U to Florida avenue	980	32							3,908		
Eleventh street, from B to Pennsylvania avenue	500	55				3,145				1872	
Eleventh street, from Pennsylvania avenue to E street	430	55	2,500							1878	
Eleventh street, from E to F	362	55			1,734					1879	
Eleventh street, from F to G	266	55			1,214					1880	
Eleventh street, from G to K	1,330	55 35		3,866						1875	(a)

a H to I, brick gutter, 1875.

TABLE F.—*Statement of character and extent of street pavements July 1, 1897*—Continued.

NORTHWEST—Continued.

Locality.	Carriageway.											Resurfaced; originally paved with—
	Length.	Width.	Asphalt.	Coal tar and concrete.	Granite.	Cobble and blue rock.	Macadam.	Asphalt block.	Gravel and unimproved.	Year paved.	Year resurfaced.	
	Feet.	*Feet.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*			
Third street, from Pennsylvania avenue to D street	1,130	32	.....	.....	4,231	.....	.....	.....	.....	1880	.....	
Third street, from intersection of D	.....	32	436	.....	.....	.....	.....	.....	.....	1880	.....	
Third street, from Indiana avenue to L street	3,260	40	16,359	.....	.....	.....	.....	.....	.....	1875	1883 1884	Coal tar.
Third street, from Indiana avenue to New York avenue	500	40	2,685	.....	.....	.....	.....	.....	.....	1875	.....	
Third street, from New York avenue to P street	950	35	4,177	.....	.....	.....	.....	.....	.....	1893	.....	
Third street, from P to Florida avenue	1,207	35	.....	.....	.....	.....	.....	.....	4,706	.....	.....	
Fourth street, from Indiana avenue to New York avenue.	3,610	32	3,573	10,719	.....	.....	.....	.....	.....	1872	1878 1889 1891	Do.
Fourth street, from New York avenue to M street	230	32	.....	.....	.....	647	.....	.....	.....	1873	.....	
Fourth street, from M to New Jersey avenue	1,170	.....	.....	.....	2,401	.....	.....	.....	.....	1891	.....	
Fourth street, from New Jersey avenue to Florida avenue.	1,530	30	5,594	.....	.....	.....	.....	.....	.....	1891	.....	
Four-and-a-half street, from center of Mall to Pennsylvania avenue.	720	55	.....	3,640	.....	.....	.....	.....	.....	1886	.....	
Four-and-a-half street, from Pennsylvania avenue to D street.	760	50	.....	.....	.....	.....	.....	4,549	.....	1889	.....	
Fifth street, from D to G	1,240	46	3,341	.....	.....	.....	.....	.....	.....	1885	1894	
Fifth street, from G to New York avenue	930	32	.....	7,389	.....	.....	.....	.....	.....	1873	1887 1873	Do.
Fifth street, from New York avenue to O street	1,620	32	5,666	.....	.....	.....	.....	.....	.....	1879	.....	
Fifth street, from O to Q	850	32	3,123	.....	.....	.....	.....	.....	.....	1889	.....	
Fifth street, from Q to Florida avenue	1,360	32	4,436	.....	.....	.....	.....	.....	.....	1889	.....	
Sixth street, from center of Mall to Missouri avenue	670	60	.....	.....	.....	3,333	.....	.....	.....	.....	.....	
Sixth street, from Missouri avenue to Louisiana avenue.	850	60	5,078	.....	.....	.....	.....	.....	.....	1885	.....	
Sixth street, from Louisiana avenue to E street	550	32	791	2,196	.....	.....	.....	.....	.....	1877	1882	Do.
Sixth street, from E to F	470	32	1,313	.....	.....	.....	.....	.....	.....	1878	1889	Asphalt.
Sixth street, from F to G	250	32	.....	.....	975	.....	.....	.....	.....	1880	1894	Surface asphalt binder.
Sixth street, from G to New York avenue	1,790	32 35	.....	6,896	.....	.....	.....	.....	.....	1887	.....	
Sixth street, from New York avenue to Florida avenue	4,240	35	16,636	.....	.....	.....	.....	.....	.....	1880	.....	
Madison street, between Sixth and Seventh, M and N	540	25	1,538	.....	.....	.....	.....	.....	.....	1889	.....	

TABLE F.—*Statement of character and extent of street pavements July 1, 1897.*

NORTHWEST.

Locality.	Carriageway.											Resurfaced; originally paved with—
	Length.	Width.	Asphalt.	Coal tar and concrete.	Granite.	Cobble and blue rock.	Macadam.	Asphalt block.	Gravel and unimproved.	Year paved.	Year resurfaced.	
	Feet.	*Feet.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*			
North Capitol street, from B (west side) to C	490	50	1,395							1883		
North Capitol street, from C (west side) to D	400	50							1,050			
North Capitol street, from D (west side) to E	400	50			1,198					1893		
North Capitol street, from E (west side) to Massachusetts avenue.	540	50		1,928						1889		
North Capitol street, from Massachusetts avenue (west side) to I street.	1,390	50	3,728							1887		
North Capitol street, from I (west side) to K	440	50	1,443							1889		
North Capitol street, from K (west side) to M	1,130	50	3,103							1892		
North Capitol street, from M (west side) to New York avenue.	500	50	1,108							1893		
North Capitol street, from New York avenue (west side) to O street	445	50	852							1893		
North Capitol street, from O to Florida avenue	720	50							1,233			
Arthur street, between New Jersey avenue and First, B and C streets.	470	25						1,366		1886		
First street, from center of Botanical Garden to Pennsylvania avenue.	440		2,270							1883	1895	
First street, from Pennsylvania avenue to F street	2,240	56 40			7,215		a 527	590		1892 1879		
First street, from F to H	620	32			1,427					1882		
First street, from H to Defrees	170	32		700						1877		
First street, from Defrees to I	150	32			535					1882		
First street, from I to K	390	32	1,191							1890		
First street, from K to Pierce	686	32	3,051							1894		
First street, from Pierce to Florida avenue	2,504	32	b 1,158						7,791	1897		
Second street, from Pennsylvania avenue to Indiana avenue.	860	40			3,693					1891		
Second street, from Indiana avenue to I street	2,900	40	10,452							1891		
Kirby street, between First and Third, M and N	480	32							1,760			
Third street, from center of Botanical Garden to Pennsylvania avenue.	500					2,230				1881		

a Vitrified brick.

b Paved from O to P.

TABLE F.—*Statement of character and extent of street pavements July 1, 1897*—Continued.

NORTHWEST—Continued.

Locality.	Carriageway.											Resurfaced; originally paved with—
	Length.	Width.	Asphalt.	Coal tar and concrete.	Granite.	Cobble and blue rock.	Macadam.	Asphalt block.	Gravel and unimproved.	Year paved.	Year resurfaced.	
	Feet.	*Feet.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*			
Eleventh street, from K to O	1,190	35			4,326					1880		
Eleventh street, from O to Florida avenue	4,000	35	8,734							1891		
Twelfth street, from center of Mall to B street	840	40			3,735					1873		
Twelfth street, from B to Pennsylvania avenue	850	40			3,900					1872		
Twelfth street, from Pennsylvania avenue to E street	320	38	1,292							1878	1886	Asphalt.
Twelfth street, from E to F	420	38			1,629					1879		
Twelfth street, from F to N	340 3,330	32	1,200	11,839						1875	1894 1889	Coal tar.
Twelfth street, from intersection of G			198							1881		
Twelfth street, from N to O	430	32	1,522							1881		
Twelfth street, from O to Rhode Island avenue	530	32	1,859							1883		
Twelfth street, from Rhode Island avenue to Vermont avenue.	660	32		2,304						1887		
Twelfth street, from Vermont avenue to S street	500	32	1,798							1888		
Twelfth street, from S to V	1,460	32	5,377							1890		
Twelfth street, from V to Florida avenue	900	32	3,554							1891		
Cleveland street, between Twelfth and Thirteenth, W and Florida avenue.	500	25						1,297		1886		
Thirteenth street, from B to C	400	40	1,760							1878	1886	Asphalt.
Thirteenth street, from C to Pennsylvania avenue	700	40	3,087							1875	1887	Do.
Thirteenth street, from Pennsylvania avenue to E street.	150	40		676						1878		
Thirteenth street, from E to F	400	40			1,741					1879		
Thirteenth street, from F to P	4,150	32		15,682						1873	1888 1889	Coal tar.
Thirteenth street, from P to Corcoran	600	32	2,126							1881		Do.
Thirteenth street, around Iowa circle	1,313	32	3,838							1878	1885	
Thirteenth street, from Corcoran to T	1,310	32	4,273							1884		
Thirteenth street, from T to Florida avenue	1,800	32	7,271							1891		
Thirteenth street, from intersection of N		32	613							1879		
Thirteenth street, from intersection of B		32	775							1879		
Kingman place, between Thirteenth and Fourteenth, P and Q streets.	500	30	1,699							1889		

Thirteen-and-a-half street, from B street N. to Pennsylvania avenue.	1,300	35				5,095				1872	
Fourteenth street, from center of Mall to B street N.	775	40			3,920					1873	
Fourteenth street, from B street N. to Pennsylvania avenue.	1,340	70		8,852						1887	1894
Fourteenth street, from Pennsylvania avenue to F street.	320	70			1,734					1884	
Fourteenth street, from F to New York avenue	660	70	3,732							1873	1884 Do.
Fourteenth street, from New York avenue to H	270	70	1,549							1874	1891 Do.
Fourteenth street, from H to Florida avenue			29,086							1879	1892, 1893 Asphalt (east side).
Fourteenth street, from H to M	1,800	70	5,682							1879	1893, 1894 Asphalt (west side).
Fourteenth street, from M to Florida avenue	5,060	70	14,583							1882	1895
Johnson street, from Fourteenth (R and S) to Fifteenth	500	30	1,446							1889	
Portner street, between Fourteenth and Fifteenth, W and V.	370	25					1,025			1888	
Fifteenth street, from B to Pennsylvania avenue	1,520	43	772			a1,020	5,220			1883	1894 Asphalt block.
Fifteenth street, from Pennsylvania avenue to New York avenue.	900	70	4,938							1872	1891 New asphalt on 8-inch hydraulic base. 1878 Coal tar.
Fifteenth street, from New York avenue to Vermont avenue.	1,250	40, 50	7,005							1873	1893, 1879 Do.
Fifteenth street, from I to K	300	40	1,724							1873	1890 Do.
Fifteenth street, from K to Rhode Island avenue	1,850	32	6,921							1881	
Fifteenth street, from Rhode Island avenue to S street.	2,200	32	3,296	4,420						1875	1887, 1891 Do.
Fifteenth street, from S to U	1,100	32	3,768							1885	
Fifteenth street, from U to V	450	32	1,546							1895	
Fifteenth street, from V to Florida avenue	450							1,260			
Executive avenue, south and west to Treasury Department.	1,195		5,601							1889	1894
Fifteen-and-a-half street, from Pennsylvania avenue to H street.	465	40	2,974							1872	1880 Do.
Sixteenth street, from H to Scott Circle	2,250	50	12,450							1881	
Sixteenth street, from Scott Circle to R street	1,745	50	10,818							1882	
Sixteenth street, from R to Florida avenue b	2,065	50	13,391							1883	
Sixteen-and-a-half street, from Pennsylvania avenue to H street.	465	40	2,315							1872	1880 Do.
Seventeenth street, from B to New York avenue	1,640	50		9,285						1872	1879 Do.
Seventeenth street, from New York avenue to I street	1,560	50	4,847	4,758						1873	1894, 1880, 1886 Do.
Seventeenth street, from I to Massachusetts avenue	2,535	50, 32		10,603						1873	1894, 1878 Do.
Seventeenth street, from Massachusetts avenue to P street.	580	32		2,095						1875	1894 Do.
Seventeenth street, from P to Q	500	32		1,765						1887	
Seventeenth street, from Q to R	500	32		1,874						1889	
Seventeenth street, from R to T	950	32	2,946							1880	
Seventeenth street, from T to Florida avenue	1,050	32						4,076			

a Vitrified brick.

b Intersection of U street repaved and Hancock Circle removed 1896.

TABLE F.—*Statement of character and extent of street pavements July 1, 1897*—Continued.

NORTHWEST—Continued.

Locality.	Carriageway.											Resurfaced; originally paved with—
	Length.	Width.	Asphalt.	Coal tar and concrete.	Granite.	Cobble and blue rock.	Macadam.	Asphalt block.	Gravel and unimproved.	Year paved.	Year resurfaced.	
	Feet.	*Feet.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*			
Eighteenth street, from river to D	800	32							2,473			
Eighteenth street, from D to E	360	32	1,544							1892		
Eighteenth street, from E to New York avenue	200	32		1,096						1873	1878	Coal tar.
Eighteenth street, from New York avenue to Pennsylvania avenue.	1,170	32	4,895							1881		
Eighteenth street, from Pennsylvania avenue to K street.	920	32	4,515							1872	1882	Do.
Eighteenth street, from K to L	400	32						1,431		1886		
Eighteenth street, from L to P	1,950	32	7,048	576						1873	1879, 1878, 1897	Do.
Eighteenth street, from P to Q	500	32		1,764						1887		
Eighteenth street, from Q to S	850	32	3,130							1891		
Eighteenth street, from S to Florida avenue	940	32	3,823							1893		
Nineteenth street, from river to E	1,180	32							3,644			
Nineteenth street, from E to New York avenue	225	32				1,028						
Nineteenth street, from New York avenue to Pennsylvania avenue.	1,370	32		6,421						1873	1878	Do.
Nineteenth street, from Pennsylvania avenue to K street.	655	32			3,170					1880		
Nineteenth street, from K to M	1,010	32			3,726					1885		
Nineteenth street, from M to N	520	32			1,894					1882		
Nineteenth street, from N to Dupont Circle	570	32	2,409							1881	1895	
Nineteenth street, from Dupont Circle to Florida avenue.	2,000	32	2,841	4,757						1873	1878, 1891	Do.
Twentieth street, from river to E street	1,450	32							3,662			
Twentieth street, from E to Pennsylvania avenue	1,550	32		5,579						1873	1878	Do.
Twentieth street, from Pennsylvania avenue to I street	160	32	981							1879		
Twentieth street, from I to K	375	32			1,350					1879		
Twentieth street, from K to P	2,425	32	3,939	2,268						1873	1894, 1895, 1880	Do.
Twentieth street from P to Connecticut avenue	315	32	2,167							1873	1895	

Twentieth street, from R to S	508	32	1,995							1889	
Twentieth street, from S to Florida avenue	600	32				900				1872	
Hopkins street, between Twentieth and Twenty-first, O and P.	350	32	949							1893	
Twenty-first street, from river to E street	1,500	32							3,662		
Twenty-first street, from E to Pennsylvania avenue	1,830			6,101						1873	1878	Do.
Twenty-first street, from Pennsylvania avenue to K street.	380	32			1,304					1875	
Twenty-first street, from K to Q	2,770	32	10,892							1875	1891	Do.
Twenty-first street, from Q to Hillyer	270	32						a 956		1884	
Twenty-first street, from Hillyer to R	250	32		988						1887	
Twenty-first street, from R to Florida avenue	450	32	1,483							1890	
Twenty-second street, from river to Virginia avenue	1,565	32							3,758		
Twenty-second street, from Virginia avenue to F street	260	32				1,520				1872	
Twenty-second street, from F to G	315	32	1,407							1893	
Twenty-second street, from G to Pennsylvania avenue	1,625	32		4,641						1873	1894	Do.
Twenty-second street, from Pennsylvania avenue to M street.	1,000	32	2,852							1885	
Twenty-second street, from M to O	1,150	32	3,894							1890	
Twenty-second street, from O to P	230	32	1,586							1889	
Twenty-second street, from P to Florida avenue	450	32	2,669							1895	
Twenty-third street, from Upper Water to E	1,670	32							3,413		
Twenty-third street, from E to Virginia avenue		32							1,778		
Twenty-third street, from Virginia avenue to I street	1,050	32				4,711				1874	
Twenty-third street, from I to Pennsylvania avenue	400	32	1,425							1891	
Twenty-third street, from Pennsylvania avenue to M street.	720	32						2,387		1886	
Twenty-third street, from M to Rock Creek	950	32							3,699		
Twenty-fourth street, from E to G	730	32							2,069		
Twenty-fourth street, from G to Pennsylvania avenue	1,376	32				5,192				1873	
Twenty-fourth street, from Pennsylvania avenue to M street.	660	32				2,540				1872	
Twenty-fourth street, from M to Rock Creek	1,160	32							3,908		
Twenty-fifth street, from river to Virginia avenue	1,700	32							5,735		
Twenty-fifth street, from Virginia avenue to K street	1,100	32					2,727			1890	
Twenty-fifth street, from K to Pennsylvania avenue	330	32	1,163							1890	
Twenty-fifth street, from Pennsylvania avenue to M street.	530	32	1,893							1890	
Twenty-fifth street, from M to Rock Creek	1,140	32							3,747		
Twenty-sixth street, from river to G street	1,320	32				2,378			2,599		
Twenty-sixth street, from G to K	1,400	32				5,042				1874	
Twenty-sixth street, from K to Pennsylvania avenue	470	32			1,680					1882	
Twenty-sixth street, from Pennsylvania avenue to M street.	350	32		919						1887	
Twenty-sixth street, from M to Rock Creek	220	32							800		
Twenty-seventh street, from E to L street (R. C.)	2,750	32							8,651		
Twenty-eighth street, from Rock Creek to K street	600	35							1,066		
B street, from North Capitol to First	820	35			3,578					1873	
B street, from First to Third	810	35			5,258					1880	
B street, from Sixth to Seventh	500	56			1,875					1890	
B street, from Seventh to Twelfth	1,660	101				18,686	a 2,374			1873	

a Permit work.

TABLE F.—*Statement of character and extent of street pavements July 1, 1897*—Continued.

NORTHWEST—Continued.

Locality.	Carriageway.											Resurfaced; originally paved with—
	Length.	Width.	Asphalt.	Coal tar and concrete.	Granite.	Cobble and blue rock.	Macadam.	Asphalt block.	Gravel and unimproved.	Year paved.	Year resurfaced.	
	Feet.	*Feet.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*			
B street, from Twelfth to Seventeenth	3,150	60				23,581				1874		
B street, from Seventeenth to Twenty-third	3,050	60							18,680			
Little B street, from Tenth to Twelfth	560					567						
C street, from North Capitol to First	700	46 63			3,802					1879		
C street, from Second to Third	450	32			1,291					1882		
C street, from Third to Four-and-a-half	610	30	2,054							1882		
C street, from Four-and-a-half to Seventh	1,020	46	4,059		544					1885		
C street, from Seventh to Eighth	250	46			1,183					1879		
C street, from Ninth to Tenth	470	40			1,656					1872		
C street, from Tenth to Fifteenth	1,420	40				7,820				1872		
C street, from Seventeenth to Twenty-third	3,000	32							10,453			
D street, from North Capitol to New Jersey avenue	470	35			1,617					1894		
D street, from New Jersey avenue to Fourth street	1,470	36	3,412	406						1875	1883	Coal tar.
D street, from Fifth to Sixth	110	35	275							1889		
D street, from Sixth to Tenth	1,540	36	936		5,342					1879	1895	Asphalt on granite.
D street, from Twelfth to Fourteenth	990	40				3,904				1873		
D street, from Fourteenth to Fifteenth	370	40	1,675							1895		Asphalt on cobble.
D street, from Seventeenth to Eighteenth	660	35	2,788							1891		
D street, from Eighteenth to Twenty-third	1,800	32							8,273			
E street, from North Capitol to New Jersey avenue	620	35	2,494							1887	1893	Do.
E street, from New Jersey avenue to Fourth street	1,300	35	4,932							1879		
E street, from Fifth to Eleventh	2,160	35	9,323							1878	1889 1891	Asphalt.
E street, from Eleventh to Thirteenth	780	40			2,487					1879	1895	
E street, from Thirteenth to Fourteenth	300	35						1,093		1878	1888	Asphalt block.
E street, from Pennsylvania avenue to Fifteenth	1,000	35	3,031							1889		Asphalt on cobble.
E street, from Seventeenth to Nineteenth	450 1,030	35		1,642		3,319				1873		
E street, from Nineteenth to Twenty-second	1,400	35				7,149				1872 1873		
E street, from Twenty-second to river	2,050	35							5,871			
F street, from North Capitol to New Jersey avenue	750	35		2,902						1878		

F street, from New Jersey avenue to Fourth street	1,180	35	4,382							1879	1892	Asphalt.
F street, from Fifth to Seventh	800	35	2,359							1878	1889	Asphalt (south side).
Do	780	35		1,152						1877		
F street, from Seventh to Ninth	540	51	1,913							1877	1891 1879	Do.
F street, from Ninth to Twelfth	1,160	60	1,578	4,257						1877	1891	Coal tar.
F street, from Twelfth to Thirteenth	400	60	890	1,213						1877	1891	Do.
F street, from Thirteenth to Fifteenth	1,080	60	6,467							1883	1892	Do.
F street, from Seventeenth to Eighteenth	630	40	2,856							1881		
F street, from Eighteenth to Twenty-second	1,950	40	4,048	4,571						1873	1878 1897	Do.
Eldridge street, from Twentieth to Twenty-first	470	20							1,033			
F street, from Twenty-second to Virginia avenue	534	40	2,360							1894		
F street, from Virginia avenue to New Hampshire avenue.	400 800	35			1,711		a 2,964			1894		
F street, from New Hampshire avenue to Twenty-seventh street.	350	35							2,272			
G street, from North Capitol to New Jersey avenue	900	35		3,802						1887		
G street, from New Jersey avenue to Seventh street	2,620	35	3,700	6,873						1872	1894 1878 1879 1889	Do.
G street, from Seventh to Ninth	550	40	2,514							1872	1884	Do.
G street, from Ninth to Fifteenth b	2,670	50	8,141	6,008						1895	1878 1889 1890	Do.
G street, from Seventeenth to Twenty-second	7,600	36	3,043	6,633						1872	1887 1893	Do.
G street, from Twenty-second to Twenty-seventh	2,080	36			9,511					1873		
Washington street, between G and H, Fourth and Fifth	460	35	2,128							1889		
Grant place, between G and H, Ninth and Tenth streets	530	24	1,435							1875		
H street, from North Capitol to First	775	56	4,262							1895 1896		
H street, from First to Fourth	1,025	56			4,858					1879		
H street, from Fourth to Seventh	1,590	35		6,381						1887		
H street, from Seventh to Thirteenth	2,300	35	9,067							1872		
H street, from Thirteenth to Fourteenth	530	40	2,144							1872	1886	Do.
H street, from Fourteenth to Fifteenth	430	56	1,735							1884	1897	Do.
H street, from Fifteenth to Vermont avenue	360	56	2,422							1874	1882	Do.
H street, from Vermont avenue to Connecticut avenue	1,120	50	2,889							1881	1887	Asphalt block.
H street, from Connecticut avenue to Nineteenth street	1,425	50	5,451							1884		
H street, from Eighteenth to Twenty-second	1,990	32	6,493							1872	1880	Coal tar.
H street, from Twenty-second to Twenty-sixth	1,520	36				4,150				1875		
H street, from Twenty-sixth to Twenty-seventh	375	32				1,066						
Defrees street, between North Capitol and First, H and I.	840	22						c 1,967		1886		
I street, from North Capitol to New Jersey avenue	1,150	35		4,557								
I street, from New Jersey avenue to Fifth street	1,560	35	5,804							1884		
I street, from Fifth to H	1,000	32	4,210							1880		
I street, from Eighth to Ninth	250	32	759							1885		
I street, from Ninth to Tenth	580	32	2,090							1879		

a Vitrified brick.

b Tenth to Fourteenth widened 10 feet.

c Permit work.

TABLE F.—*Statement of character and extent of street pavements July 1, 1897*—Continued.

NORTHWEST—Continued.

Locality.	Carriageway.											Resurfaced; originally paved with—
	Length.	Width.	Asphalt.	Coal tar and concrete.	Granite.	Cobble and blue rock.	Macadam.	Asphalt block.	Gravel and unimproved.	Year paved.	Year resurfaced.	
	Feet.	*Feet.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*			
I street, from Tenth to Eleventh	300	32	714							1886		
I street, from Eleventh to Thirteenth	670	40	3,700							1872	1878	Coal tar.
I street, from Thirteenth to Fifteenth	1,260	40	4,632							1874	1894	
I street, from Fifteenth to Seventeenth	1,080	48	8,322							1873	{1894 / 1878}	Do.
I street, from Seventeenth to Eighteenth	640	40	2,672							1880		
I street, from Pennsylvania avenue to Twenty-third street.	1,450	38	6,296							1891		Macadamized.
I street, from Twenty-third to Twenty-seventh	1,620	40	2,249				5,287			{1897 / 1886}		
I street, from Eighteenth to Pennsylvania avenue	1,300	40	5,327							1886		
K street, from North Capitol to First	371	50				4,838				1874		Cobble.
K street, from First to Third	759	50	3,984							1894		
K street, from Third to Seventh	1,320	50	4,175	4,209						1874	{1878 / 1889}	Coal tar.
K street, from Seventh to Ninth	1,460	{53 / 30}	9,315							1873	{1881 / 1886}	Do.
K street, from intersection of Vermont avenue			717								1894	
K street, from Ninth to Eighteenth	4,990	50	7,405	20,146						1875	{1889 / 1893 / 1896}	Do.
K street from Eighteenth to Twenty-third	2,160	50	11,671		619					1880	1895	
K street, from Twenty-third to Twenty-eighth	1,810				12,571					1874		
L street, from North Capitol to New Jersey avenue	1,400	32	4,643							1890		
L street, from New Jersey avenue to Fourth street	550	32		1,592						1877		
L street, from Fourth to Fifth	750	32			2,665					1877		
L street, from Fifth to Sixth	240	32										
L street, from Eighth to Seventeenth	4,040	32	21,203							1877	{1887 / 1889 / 1891}	Do.
L street, from Connecticut avenue to Twentieth street	1,390	32										
L street, from Sixth to Eighth	740	32	2,645							1883		
L street, from Seventeenth to Connecticut avenue	380			1,628						1873		
L street, from Twentieth to Twenty-fifth	2,345	32	8,141							1883		
L street, from Twenty-fifth to Twenty-sixth	210	32	483							1880		

L street, from Twenty-sixth to Twenty-seventh	335	32	1,175							1889		
De Sales street, between L and M, Seventeenth and Connecticut avenue.	550	32		2,493						1875		
Pierce street, between L and M, New Jersey avenue and North Capitol street.	1,500	40	5,535							1889		
M street, from North Capitol to First	870	35	3,057							1894		
M street, from First to New Jersey avenue	720	35	2,597							1890		
M street, from New Jersey avenue to Sixth street	1,400	35	5,564							1880		
M street, from Sixth to Fourteenth	1,830	35	13,147							1879	1894	
M street, from Fourteenth to Sixteenth	1,100	40	4,573							1881	1894	
M street, from Sixteenth to Eighteenth	1,460	40	4,532	1,319						1873	{1878 / 1889}	Do.
M street, from Eighteenth to New Hampshire avenue	1,570	40	6,084							1879	1886	Asphalt.
M street, from New Hampshire avenue to Rock Creek	2,125	40	9,171							1882		
Jefferson street, between M and N, Eighteenth and Nineteenth.	450	27						a1,393		1884		
Ridge street, between M and N, Fourth and Fifth	760	30	2,518							1879		
Ward place, between New Hampshire avenue and Twenty-second street, M and N	545	{50 / 25}	1,505							1892		
N street, from North Capitol to New Jersey avenue	1,600	32	5,642							1893		
N street, from New Jersey avenue to Fifth street	890	32	3,311							1890		
N street, from Fifth to Ninth	1,300	32	4,454							1883		
N street, from Ninth to Fourteenth	2,190	32	6,802							1880		
N street, from Fourteenth to Sixteenth	910	32	3,249							1881		
N street, from Sixteenth to New Hampshire avenue	2,245	32	2,781	3,775						1873	{1894 / 1878}	Coal tar.
N street, from New Hampshire avenue to Twenty-first street.	260	32		517						1875		
N street, from Twenty-first to Twenty-second	620	32	2,081							1893		
N street, from Twenty-second to Twenty-fourth	710	32	2,196							1892		
N street, from Twenty-fourth to Rock Creek	810	32							2,394			
Sunderland place, between N and O, Nineteenth and Twentieth streets.	380	30						a1,185		1885		
Morgan street, between M and N, First and Third	380	30	1,307							1892		
O street, from North Capitol to New Jersey avenue	1,830	32							6,172			
O street, from New Jersey avenue to Thirteenth street	3,250	32	4,756	8,905	1,245					1875	1881	Do.
O street, from Thirteenth to Vermont avenue	130	32	481							1883		
O street, from Fifteenth to Sixteenth	520	32		1,663						1875		
O street, from Sixteenth to Seventeenth	520	32	1,697							1883		
O street, from Twentieth to Twenty-first	500	32		2,011						1887		
O street, from Twenty-first to Twenty-second	600	32	2,398							1889		
O street, from Twenty-second to Rock Creek	200	32							693			
P street, from North Capitol to Fourth	1,970	32	7,135							1891		
P street, from Fourth to Ninth	2,080	32	5,166							1884		
P street, from Ninth to Fifteenth	2,560	32	8,156		500					1884		
P street, from Fifteenth to Eighteenth	1,500	32	8,076							1884		
P street, from Eighteenth to Twentieth	450	32	274	1,295						1873	1878	Do.
P street, from Twentieth to Twenty-second	1,120	40			3,481					{1879 / 1895}		
P street, from Twenty-second to Rock Creek	300	40	1,079							1872	{1887 / 1881}	Do.

a Permit work.

TABLE F.—*Statement of character and extent of street pavements July 1, 1897*—Continued.

NORTHWEST—Continued.

Locality.	Carriageway.											Resurfaced; originally paved with—
	Length.	Width.	Asphalt.	Coal tar and concrete.	Granite.	Cobble and blue rock.	Macadam.	Asphalt block.	Gravel and unimproved.	Year paved.	Year resurfaced.	
	Feet.	*Feet.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*			
Madison street, between Seventeenth and Eighteenth, P and Q.	870	25	2,291							1893	1892	
Sampson street, between Fourteenth and Fifteenth, P and Q.	690	24	1,733							1890		
Franklin street, between P and Q, New Jersey avenue and Fifth.	630	30							1,667			
Bates street, between P and Q, North Capitol and First.	840	25							1,800			
Madison street, between P and Q, Fifteenth and Seventeenth.	1,040	25		2,674						1875		
Q street, from Florida avenue to Third	1,470	32							6,151			
Q street, from Third to New Jersey avenue	420	32	1,812							1890		
Q street, from New Jersey avenue to Fifth	560	32	2,031							1888		
Q street, from Fifth to Sixth	270	32	833							1890		
Q street, from Sixth to Rhode Island avenue	1,460	32	2,104	2,655						1887	1895	
Q street, from Rhode Island avenue to Vermont avenue	900	32		2,453						1889		
Q street, from Vermont avenue to Fourteenth	850	32	2,806							1883		
Q street, from Fourteenth to Sixteenth	1,250	32	2,338	2,468						1874	1886 1891	Coal tar.
Q street, from Sixteenth to Seventeenth	550	32	1,890							1875	1889	
Q street, from Seventeenth to Nineteenth	1,400	32	4,904							1888	1895	Do.
Q street, from Nineteenth to Twentieth	360	32		862						1873	1873 1882	
Q street, from Twentieth to Twenty-second	970	32		2,541						1886		
Q street, from Twenty-first to Massachusetts avenue	80			883						1875		
Hilyer street, between Q and R, Twentieth and Twenty-first.	470	27						a1,552		1884		
Warner street, between New Jersey avenue and Fifth, Q and R.	470	25							1,333			
Corcoran street, between Thirteenth and Fourteenth, Q and R.	554	30	2,067							1887	1895	
Corcoran street, between Fourteenth and Fifteenth, Q and R.	630	30		2,129						1875		

Corcoran street, between Fifteenth and New Hampshire avenue, Q and R.	1,820	30	4,851						1888		
Corcoran street, between Eighteenth and Nineteenth, Q and R.	470	30	1,163						1889		
R street, from Florida avenue to Seventh	2,410	32	7,551						1890		
R street, from Seventh to Ninth	530	32		1,602					1880	1894	Do.
R street, from Ninth to Fourteenth	2,220	32	7,638						1884		
R street, from Fourteenth to Sixteenth	1,250	32		4,502					1875		
R street, from Sixteenth to New Hampshire avenue	1,140	32	3,918						1890		
R street, from New Hampshire avenue to Twentieth street.	1,150	32	3,498						1891		
R street, from Twentieth to Twenty-first	400	32		1,411					1887		
R street, from Twenty-first to Florida avenue	250	32	735						1893		
Riggs street, between R and S, to Eighteenth and Nineteenth.	450	32						1,300			
Riggs street, between R and S, to Sixteenth and Seventeenth.	500	30	1,620						1891		
Riggs street, between R and S, to Thirteenth and Fourteenth.	625	30					2,080		1886		
French street, between R and S, to Ninth and Tenth	520	30	1,692						1889		
Riggs street, between R and S, to New Hampshire avenue and Nineteenth street.	837	25	2,555						1897		
S street, from Florida avenue to Seventh street	1,300	32	4,539						1894		
S street, from Seventh to Eleventh	1,400	32		5,047					1889		
S street, from Eleventh to Fourteenth	1,300	32	4,240	995					1875	1891 1894	Do.
S street, from Fourteenth to Sixteenth	1,160	32	1,757	2,457					1873	1889	Do.
S street, from Sixteenth to New Hampshire avenue	735	32	2,681						1889		
S street, from New Hampshire avenue to Twentieth street.	1,560	32	5,195						1894		
S street, from Twentieth to Connecticut avenue	300	32	1,077						1889		
Oregon avenue, between S and T, to New Hampshire avenue and Eighteenth street.	1,150	30	2,484						1895		
Oregon avenue, from Eighteenth to Nineteenth	402	30						1,340			
Pierce street, between S and T, to Fourteenth and Fifteenth.	660	30	2,154						1873	1886	Do.
Pierce street, between S and T, to Fifteenth and Sixteenth.	520	30	1,366						1893		
Pierce street, between S and T, to Sixteenth and Seventeenth.	520	40						1,320			
Westminster street, between S and T, to Ninth and Tenth.	535	30	1,749						1893		
T street, from Florida avenue to Ninth street	800	32	1,556			1,111			1897		Macadam.
T street, from Ninth to Tenth	535	32	1,766						1891		
T street, from Tenth to Fourteenth	1,600	32	4,256						1893		
T street, from Fourteenth street to New Hampshire avenue.	1,320	32	5,147						1895		
T street, from New Hampshire avenue to Florida avenue.	1,517	32				6,305					
Willard street, between T and U, to Seventeenth and Eighteenth.	870	25						2,360			

a Permit work.

TABLE F.—*Statement of character and extent of street pavements July 1, 1897*—Continued.

NORTHWEST—Continued.

Locality.	Carriageway.											Resurfaced; originally paved with—
	Length.	Width.	Asphalt.	Coal tar and concrete.	Granite.	Cobble and blue rock.	Macadam.	Asphalt block.	Gravel and unimproved.	Year paved.	Year resurfaced.	
	Feet.	*Feet.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*			
Caroline street, between T and U, to Fifteenth and Sixteenth.	520	24	1,325	.....	.....	.....	.....	.....	.....	1891	.....	
Wallach street, between T and U, to Thirteenth and Fourteenth.	610	30	.....	.....	.....	.....	.....	a2,075	.....	1886	.....	
U street, from Ninth to Tenth	570	32	2,301	.....	.....	.....	.....	.....	.....	1891	.....	
U street, from Tenth to Fourteenth	1,560	45	4,808	.....	.....	.....	.....	.....	.....	1893	.....	
U street, from Fourteenth to Sixteenth	1,150	45	3,310	.....	.....	.....	.....	.....	.....	1891	.....	
U street, from Sixteenth to Florida avenue	1,367	45	4,125	.....	.....	.....	.....	.....	.....	1897	.....	
Seaton street, between U and V, to Seventeenth and Eighteenth.	560	20	.....	.....	.....	.....	.....	.....	1,822	.....	.....	
V street, from Vermont avenue to Thirteenth street	1,348	32	.....	.....	.....	.....	.....	.....	4,211	.....	.....	
V street, from Thirteenth to Fifteenth	1,357	32	4,543	.....	.....	.....	.....	.....	.....	1894	.....	
V street, from Fifteenth street to Florida avenue	1,395	32	.....	.....	.....	.....	.....	.....	4,541	.....	.....	
W street, from Florida avenue to Florida avenue	2,470	32	b1,368	.....	.....	.....	.....	.....	5,833	1897	.....	
Connecticut avenue, intersection of Florida avenue	.....	.....	140	.....	.....	.....	.....	.....	.....	1895	1895	
Connecticut avenue, from H street to Florida avenue	4,090	50	15,719	20,527	.....	.....	.....	.....	.....	1873	1878 1884 1886 1897	Coal tar.
Florida avenue, from Q street to R	415	46	2,612	.....	.....	.....	.....	.....	.....	1895	.....	
Florida avenue, from R street to Connecticut avenue	367	46	.....	.....	.....	.....	1,876	.....	.....	1895	.....	
Intersection of Connecticut avenue and S street	.....	.....	2,064	.....	.....	.....	.....	.....	.....	1895	.....	
Florida avenue, from Connecticut avenue to Eighteenth street.	1,500	46	5,080	.....	.....	.....	.....	.....	.....	1895 1897	.....	
Florida avenue, from Eighteenth street to Ninth	7,074	.....	.....	.....	.....	.....	39,315	.....	.....	1875 1876	.....	
Florida avenue, from Ninth street to Seventh	650	45	.....	.....	2,304	.....	.....	.....	.....	1874	.....	
Florida avenue, from Seventh street to New Jersey avenue.	1,250	46	7,208	.....	.....	.....	.....	.....	.....	1888	.....	
Florida avenue, from New Jersey avenue to Fourth street.	600	46	3,405	.....	.....	.....	.....	.....	.....	1890	.....	
Florida avenue, from Fourth street to First	1,320	46	.....	.....	.....	.....	6,563	.....	.....	1896	.....	

Indiana avenue, from First street to Third	1,640	35	8,530							1887		
Louisiana avenue, from Third street to Seventh	1,280	60	4,054		9,243					1881		
Louisiana avenue, from Eighth street to Ninth	200				1,137					1879		
Louisiana avenue, from intersection to Seventh street and C.	200							3,214		1880		
Louisiana avenue, from Ninth street to Tenth	570	78½			4,765					1872		
Massachusetts avenue, from North Capitol street to New Jersey avenue.	800	50		5,143						1887		
Massachusetts avenue, from New Jersey avenue to Third street.	800	50	3,858							1882	1891	Asphalt.
Massachusetts avenue, from Third street to Seventh	2,000	50	3,121	785						1881	1889	South side asphalt; north side coal tar.
Massachusetts avenue, from Fourth street to Seventh	1,670	50	3,108							1883		
Massachusetts avenue, from Ninth street to Thirteenth	1,650	50	9,920							1880		
Massachusetts avenue, from Thirteenth to Fourteenth street.	550	50	2,991							1877	1884	Coal tar.
Massachusetts avenue, around Thomas Circle	816	50	6,000							1877		
Massachusetts avenue, from Fourteenth to Twentieth street.	3,200	50	12,547	1,351						1873	1893	Do.
Massachusetts avenue, around Scott Square	565			12,560						1877		
Massachusetts avenue, from Twentieth street to Florida avenue.		50		5,817						1875		
Massachusetts avenue, intersection of Fourth street		50		742						1877		
Massachusetts avenue, intersection of Fifth street		50		498						1877		
Highland Terrace, from Fourteenth to Fifteenth street	600			1,248						1873		
Missouri avenue, from Third to Four-and-a-half street	674	35			2,562					1884		
Missouri avenue from Four-and-a-half to Sixth street	650	35				1,081		1,371		1872 / 1894		
New Hampshire avenue, from Twenty-seventh to G street.	900	50				5,000						
New Hampshire avenue, from G street to Pennsylvania avenue.	1,630	50				7,967						
New Hampshire avenue, from Pennsylvania avenue to M street.	980	50	6,992							1879		
New Hampshire avenue, from M to P street	1,750	50	10,047							1882		
New Hampshire avenue, from P to Q street	400	50	2,538							1885		
New Hampshire avenue, from Q to R street	650	50	4,164							1888		
New Hampshire avenue, from R to T street	1,340	50	8,809							1889		
New Hampshire avenue, from T to V street	1,100	50	6,805							1890		
New Hampshire avenue, from V street to Florida avenue.	500	50							2,088			
New Hampshire avenue, around Dupont Circle	1,350			2,446						1873		
New Jersey avenue, from B to C street	570	50	1,635	1,235						1877	1885	Do.
New Jersey avenue, from C to D street	400	50		2,385						1877	1883	Coal tar (west side).
New Jersey avenue, from C to D street	400	50			1,177					1877		
New Jersey avenue, from D to L street	2,350	50	21,463							1882		
New Jersey avenue, from L street to New York avenue.	600	50	3,969							1884		
New Jersey avenue, from New York avenue to Florida avenue.	3,420	50	6,727	11,400						1887	1895	Do.

a Permit work.

b Paved, Seventh to Ninth.

TABLE F.—*Statement of character and extent of street pavements July 1, 1897*—Continued.

NORTHWEST—Continued.

Locality.	Carriageway.											Resurfaced; originally paved with—
	Length.	Width.	Asphalt.	Coal tar and concrete.	Granite.	Cobble and blue rock.	Macadam.	Asphalt block.	Gravel and unimproved.	Year paved.	Year resurfaced.	
	Feet.	*Feet.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*			
Caroline street, between T and U, to Fifteenth and Sixteenth.	520	24	1,325	.....	.....	.....	.....	.....	.....	1891	.....	
Wallach street, between T and U, to Thirteenth and Fourteenth.	610	30	.....	.....	.....	.....	.....	a 2,075	.....	1886	.....	
U street, from Ninth to Tenth	570	32	2,301	.....	.....	.....	.....	.....	.....	1891	.....	
U street, from Tenth to Fourteenth	1,560	45	4,808	.....	.....	.....	.....	.....	.....	1896	.....	
U street, from Fourteenth to Sixteenth	1,150	45	3,310	.....	.....	.....	.....	.....	.....	1891	.....	
U street, from Sixteenth to Florida avenue	1,367	45	4,125	.....	.....	.....	.....	.....	.....	1897	.....	
Seaton street, between U and V, to Seventeenth and Eighteenth.	560	20	.....	.....	.....	.....	.....	.....	1,822	.....	.....	
V street, from Vermont avenue to Thirteenth street	1,348	32	.....	.....	.....	.....	.....	.....	4,211	.....	.....	
V street, from Thirteenth to Fifteenth	1,357	32	4,543	.....	.....	.....	.....	.....	.....	1894	.....	
V street, from Fifteenth street to Florida avenue	1,395	32	.....	.....	.....	.....	.....	.....	4,541	.....	.....	
W street, from Florida avenue to Florida avenue	2,470	32	b 1,358	.....	.....	.....	.....	.....	5,833	1897	.....	
Connecticut avenue, intersection of Florida avenue	.....	.....	140	.....	.....	.....	.....	.....	.....	1895	1895	
Connecticut avenue, from H street to Florida avenue	4,090	50	15,719	20,527	.....	.....	.....	.....	.....	1873	1878 1884 1886 1897	Coal tar.
Florida avenue, from Q street to R	415	46	2,612	.....	.....	.....	.....	.....	.....	1895	.....	
Florida avenue, from R street to Connecticut avenue	367	46	.....	.....	.....	.....	1,876	.....	.....	1895	.....	
Intersection of Connecticut avenue and S street	.....	.....	2,064	.....	.....	.....	.....	.....	.....	1895	.....	
Florida avenue, from Connecticut avenue to Eighteenth street.	1,500	46	5,080	.....	.....	.....	.....	.....	.....	1895 1897	.....	
Florida avenue, from Eighteenth street to Ninth	7,074	.....	.....	.....	.....	.....	39,315	.....	.....	1875 1876	.....	
Florida avenue, from Ninth street to Seventh	650	45	.....	.....	2,304	.....	.....	.....	.....	1874	.....	
Florida avenue, from Seventh street to New Jersey avenue.	1,250	46	7,208	.....	.....	.....	.....	.....	.....	1888	.....	
Florida avenue, from New Jersey avenue to Fourth street.	600	46	3,405	.....	.....	.....	.....	.....	.....	1890	.....	
Florida avenue, from Fourth street to First	1,320	46	.....	.....	.....	.....	6,563	.....	.....	1896	.....	
Florida avenue, from First street to North Capitol	950	46	5,846	.....	.....	.....	.....	.....	.....	.....	.....	

Indiana avenue, from First street to Third	1,040	35	8,530							1887	
Louisiana avenue, from Third street to Seventh	1,260	60	4,064		9,243					1881	
Louisiana avenue, from Eighth street to Ninth	200				1,137					1879	
Louisiana avenue, from intersection to Seventh street and C.	200							3,214		1880	
Louisiana avenue, from Ninth street to Tenth	570	78½			4,765					1872	
Massachusetts avenue, from North Capitol street to New Jersey avenue.	800	50		5,143						1887	
Massachusetts avenue, from New Jersey avenue to Third street.	800	50	3,858							1882	1891	Asphalt.
Massachusetts avenue, from Third street to Seventh	2,000	50	3,121	785						1881	1889	South side asphalt; north side coal tar.
Massachusetts avenue, from Fourth street to Seventh	1,670	50	3,108							1883		
Massachusetts avenue, from Ninth street to Thirteenth	1,650	50	9,920							1880		
Massachusetts avenue, from Thirteenth to Fourteenth street.	550	50	2,991							1877	1884	Coal tar.
Massachusetts avenue, around Thomas Circle	816	50	6,000							1877		
Massachusetts avenue, from Fourteenth to Twentieth street.	3,200	50	12,547	1,351						1873	1893	Do.
Massachusetts avenue, around Scott Square	565			12,560						1877		
Massachusetts avenue, from Twentieth street to Florida avenue.		50		5,817						1875		
Massachusetts avenue, intersection of Fourth street		50		742						1877		
Massachusetts avenue, intersection of Fifth street		50		498						1877		
Highland Terrace, from Fourteenth to Fifteenth street	600			1,248						1873		
Missouri avenue, from Third to Four-and-a-half street	674	35			2,562					1884		
Missouri avenue from Four-and-a-half to Sixth street	650	35				1,081		1,371		1872 1894		
New Hampshire avenue, from Twenty-seventh to G street.	900	50				5,000						
New Hampshire avenue, from G street to Pennsylvania avenue.	1,630	50				7,967						
New Hampshire avenue, from Pennsylvania avenue to M street.	980	50	6,992							1879		
New Hampshire avenue, from M to P street	1,750	50	10,047							1882		
New Hampshire avenue, from P to Q street	400	50	2,538							1885		
New Hampshire avenue, from Q to R street	650	50	4,164							1888		
New Hampshire avenue, from R to T street	1,340	50	8,809							1889		
New Hampshire avenue, from T to V street	1,100	50	6,805							1890		
New Hampshire avenue, from V street to Florida avenue.	500	50							2,088			
New Hampshire avenue, around Dupont Circle	1,350			2,446						1873		
New Jersey avenue, from B to C street	570	50	1,635	1,235						1877	1885	Do.
New Jersey avenue, from C to D street	400	50		2,385						1877	1883	Coal tar (west side).
New Jersey avenue, from C to D street	400	50			1,177					1877		
New Jersey avenue, from D to L street	2,350	50	21,463							1882		
New Jersey avenue, from L street to New York avenue.	600	50	3,969							1884		
New Jersey avenue, from New York avenue to Florida avenue.	3,420	50	6,727	11,400						1887	1895	Do.

a Permit work.

b Paved, Seventh to Ninth.

TABLE F.—*Statement of character and extent of street pavements July 1, 1897*—Continued.

NORTHWEST—Continued.

Locality.	Carriageway.											Resurfaced; originally paved with—
	Length.	Width.	Asphalt.	Coal tar and concrete.	Granite.	Cobble and blue rock.	Macadam.	Asphalt block	Gravel and unimproved.	Year paved.	Year resurfaced.	
	Feet.	*Feet.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*			
New York avenue, from New Jersey avenue to North Capitol street.	1,720	50	5,604	.....	.....	.....	.....	.....	.....	1890	.....	
New York avenue, from New Jersey avenue to Seventh street.	2,150	50	9,229	.....	.....	.....	.....	.....	.....	1889	.....	
New York avenue, from Ninth to Fifteenth street.	4,520	50	12,500	9,817	.....	.....	.....	.....	.....	1872	1878 1895 1875	Coal tar.
New York avenue, from Fourteenth to Fifteenth street.	450	86	1,244	619	.....	.....	.....	.....	.....	1872	1887 1885	Do.
New York avenue, from Thirteenth to Fourteenth street.	600	50	2,170	.....	.....	.....	.....	.....	.....	1891	1894	
New York avenue, from Seventeenth to Eighteenth street.	630	50	.....	3,509	.....	.....	.....	.....	.....	1873	1878	Asphalt.
New York avenue, from Eighteenth to Nineteenth street.	.....	50	.....	.....	.....	.....	.....	.....	.....	.....	.....	
New York avenue, from Nineteenth to Twenty-third street.	1,980	50	.....	.....	.....	.....	.....	.....	11,388	.....	.....	
Ohio avenue, from Twelfth to Fifteenth street	1,080	60	.....	.....	.....	11,355	.....	.....	.....	1872 1874	.....	
Pennsylvania avenue, from First to Sixth street	2,250	108½	25,322	.....	.....	.....	.....	.....	.....	1887	1890	Do.
Pennsylvania avenue, from Sixth to Fifteenth street	4,120	108½	53,199	.....	.....	.....	.....	.....	.....	1876 1877	1894 1890	Do.
Pennsylvania avenue, from Fifteenth to Eighteenth street.	2,340	85	17,017	.....	.....	.....	.....	.....	.....	1871	1878 1880	Coal tar.
Pennsylvania avenue, from Eighteenth to Twenty-third street.	2,370	80	10,078	5,555	.....	.....	.....	.....	.....	1875	1894 1889	Coal tar (north and south side).
Pennsylvania avenue, from Eighteenth to Twenty-third street.	.....	80	9,752	11,398	.....	.....	.....	.....	.....	1875	.....	
Pennsylvania avenue, from Twenty-third street to Rock Creek.	1,500	80	12,753	.....	.....	.....	.....	.....	.....	1877	1895 1888	Coal tar.
Pennsylvania avenue, around Washington Circle	1,256	.....	6,083	.....	.....	.....	.....	.....	.....	1880	.....	
Rhode Island avenue, from Connecticut avenue to Scott Circle.	1,280	50	4,701	710	.....	.....	.....	.....	.....	1873	1893 1894	Do.

Rhode Island avenue, from Scott Circle to Thirteenth street.	1,000	50	7,723							1881		
Rhode Island avenue, from Thirteenth to Ninth street.	1,200		9,219							1882		
Rhode Island avenue, from Ninth to Fifth street	1,300		8,120							1883		
Rhode Island avenue, from Fifth street to New Jersey avenue.	320	50	2,313							1888		
Rhode Island avenue, from New Jersey to Florida avenue.	220	50							2,313			
Virginia avenue, from B to E street	2,050	50							11,400			
Virginia avenue, from E to G street	1,350	50	8,724							1895		
Virginia avenue, from G to Rock Creek	2,000								10,153	1896		
Vermont avenue, from H to I street	400	50	4,156							1872	1880	Do.
Vermont avenue, from K to M street	1,060	50	6,537							1872	1878 1872 1894	Do.
Vermont avenue, from M to P street	1,200	50	6,150	190						1873	1893	Do.
Vermont avenue, from P to R street	980	50	6,103							1881		
Vermont avenue, from R to T street	980	50					4,853					
Vermont avenue, from T street to Florida avenue	980	50							6,424			

SOUTHWEST.

South Capitol street, from B (west side) to Canal	1,450	50							3,419			
South Capitol street, from Canal (west side) to H	1,050	50			2,827					1894		
South Capitol street, from H (west side) to M	1,300	50							3,594			
South Capitol street, from M (west side) to N	600					1,623						
South Capitol street, from N (west side) to river	2,300								6,166			
Half street, from Virginia avenue to river	5,300	32							18,844			
Augusta street, between Half to First, R to S	420	20							890			
First street, from center Botanical Garden to Maryland avenue.	400	53	2,270							1873		
First street, from Maryland avenue to Virginia avenue.	2,020	35			6,722					1873		
First street, from Virginia avenue to M street	2,300	35			11,198					1876		
First street, from M to N	700	32				2,314						
First street, from N to river	3,700	32							13,160			
Second street, from Maryland avenue to C street	550	45 32	2,224							1892		
Second street, from C to F	1,200	32	5,690							1892		
Second street, from F to L	1,500	32					5,886			1889		
Second street, from L to river	4,100	32							11,913			
Third street, from center Botanical Garden to B	850	40			3,835					1881		
Third street, from B to Virginia avenue	1,300	40	5,890							1884		
Third street, from Virginia avenue to F street	480	40	2,088							1885		
Third street, from F to H	700	40	2,947							1895		
Third street, from H to P	2,728	40							9,803			
Four-and-a-half street, from center of Mall to Maine avenue.	450	55	1,143							1883		
Four-and-a-half street, from Maine avenue to Maryland avenue.	420	55	4,833							1890		

TABLE F.—*Statement of character and extent of street pavements July 1, 1897*—Continued.

SOUTHWEST—Continued.

Locality.	Carriageway.											Resurfaced; originally paved with—
	Length.	Width.	Asphalt.	Coal tar and concrete.	Granite.	Cobble and blue rock.	Macadam.	Asphalt block.	Gravel and unimproved.	Year paved.	Year resurfaced.	
	Feet.	*Feet.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*			
Four-and-a-half street, from Maryland avenue to H street.	2,650	55			12,851					1882		
Four-and-a-half street, from H to P	3,070	55			14,566					1889		
Union street, from Four-and-a-half to Sixth, between M and O.	1,220	40				5,333						
Sixth street, from center of Mall to C street	1,250	66				5,667						
Sixth street, from C to river	4,520	40			18,700					1873		
Six-and-a-half street, from Sixth to Seventh, between D and E.	550	28							1,548			
Seventh street, from center of Mall to Water street	5,200	51			19,839					1877		
Eighth street, from B to C	400	35	1,434							1890		
Eighth street, from C to E	910	35	3,035							1893		
Eighth street, from E to H	1,047	35	3,574							1895		
Eighth street, from H to Water	683	35							2,332			
Ninth street, from B to C	410	32	1,458							1889		
Ninth street, from C to D	520	32				655						
Ninth street, from D to Water	2,100	32			7,061					1883		
Tenth street, from B to Maryland avenue	720	32						2,411		1886		
Tenth street, from Maryland avenue to river	1,500	32				5,000						
Eleventh street, from B to river	1,950	40			10,511					1873		
Twelfth street, from B to river	1,870	40			8,444					1872		
Twelfth street, from center of Mall to B street	760	40			3,735					1873		
Thirteenth street, from B to Maryland avenue	1,180	40	5,705							1876		
Thirteenth street, from Maryland avenue to Water street.	470	40							2,088			
Thirteen-and-a-half street, from B to D	870	32						3,016		1895		
Thirteen-and-a-half street, from D to Maryland avenue	380	32				1,275				1875		
Thirteen-and-a-half street, from Maryland avenue to river.	250	32							900			
Fourteenth street, from center of Mall to B street	600	40			3,920							
Fourteenth street, from B to Maryland avenue	1,420	40			6,574					1893		
Fifteenth street, from B to river	1,020	32							2,625			
B street, from South Capitol to First	840	35			4,486					1873		

B street, from First to Maryland avenue	1,940	35			5,805					1884		
B street, from Sixth to Fourteenth	3,290	32		12,840						1879		
B street, from Fourteenth to Fifteenth	420	32							1,707			
C street, from South Capital to First	820	32	3,971							1889		
C street, from First to Sixth	2,010	35	7,852							1887	1896	Coal tar.
C street, from Sixth to Seventh	600	35			1,881					1887		
C street, from Ninth to Twelfth	850	35						3,223		1885		
C street, from Seventh to Ninth	1,080	35			4,800							
C street, from Twelfth to Fourteenth	840	35						3,848		1888		
C street, from Fourteenth to Fifteenth	420	35							1,707			
D street, from South Capitol to First	820	35	4,389							1889		
D street, from First to Third	800	35	2,905							1891		
D street, from Third to Four-and-a-half	620	35		2,363						1887		
D street, from Four-and-a-half to Seventh	836	35				3,251						
D street, from Fourteenth to Fifteenth	420	35							1,707			
School street, from D and E to Four-and-a-half and Sixth.	600	34				2,346						
E street, from South Capitol to First	750	35	3,104							1890		
E street, from Virginia avenue to Third street	420	35	1,580							1887	1896	Do.
E street, from Third to Four-and-a-half	600	35		2,371						1886		
E street, from Four-and-a-half to Seventh	1,070	35	4,286							1890		
E street, from Seventh to Thirteenth	1,890	35	6,867							1892		
E street, from Thirteenth to Water	450	35							2,007			
F street, from Four-and-a-half to Seventh	1,870	35	4,315							1874		
F street, from Seventh to Tenth	1,000	35						3,973		1896		
F street, from Tenth to Twelfth	700	35				2,865				1872		
F street, from Half to Four-and-a-half	2,000	35			6,777					1882		
G street, from South Capitol to Third	1,600	35			6,517					1891		
G street, from Third to Four-and-a-half	1,600	35		2,476						1888		
G street, from Four-and-a-half to Eighth	1,320	35	5,733							1874	1881	Do.
G street, from Eighth to Water	1,000	35	5,050							1875	1881	Do.
H street, from South Capitol to Delaware avenue	750	35							2,330			
H street, from Delaware avenue to Third street	800	35	4,111							1889	1896	Do.
H street, from Third to Four-and-a-half	650	35	2,407							1887		
D street, from Seventh to Ninth	447	35						2,064		1896		
D street, from Ninth to Fourteenth	1,717	35				5,500						
H street, from Four-and-a-half to Seventh	1,070	35	4,327							1881		
H street, from Seventh to Ninth	530	30	2,138							1883		
H street, from Ninth to Water	460	35			1,581					1883		
I street, from South Capitol to Water	2,980	35						4,850	7,896	1896		
K street, from South Capitol to Canal	340	35			900				886			
K street, from Canal to First	400	35			1,706					1894		
K street, from First to Water	2,760						11,108			1890		
L street, from South Capitol to Four-and-a-half	2,280	35							9,648			
L street, from Four-and-a-half to Water	1,050	35					4,331			1889		
M street, from South Capitol to Four-and-a-half	2,250	35				12,980				1876		
M street, from Four-and-a-half to Water	1,000	35			1,883					1891		
Robinson street, from L and M to Sixth and Water	350	25							945			
Van street, between M and N, Third and Four-and-a-half	620								1,380			
N street, from South Capitol to Sixth	2,720	35				15,463				1883 1876		

TABLE F.—*Statement of character and extent of street pavements July 1, 1897*—Continued.

SOUTHWEST—Continued.

Locality.	Carriageway.											Resurfaced; originally paved with—
	Length.	Width.	Asphalt.	Coal tar and concrete.	Granite.	Cobble and blue rock.	Macadam.	Asphalt block.	Gravel and unimproved.	Year paved.	Year resurfaced.	
	Feet.	*Feet.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds*	*Sq. yds.*			
McLean street, N and O, Third **and Four-and-a-half**	630	30						a2 127		1887		
O street, from South Capitol to **Water**	2,710	32							8,530			
P street, from South Capitol to **Four-and-a-half**	3,310	30							6,945			
Q street, from South Capitol to **Canal**	1,300	30							4,367			
R street, from South Capitol to **Canal**	1,200	30							4,900			
S street, from South Capitol to **Canal**	1,200	30							4,900			
T street, from Half to Canal	1,200	30							3,620			
U street, from Eastern Branch to **Canal**	1,200	30							3,633			
V street, from **Eastern Branch to Canal**	700	30							2,000			
Canal street, from B to C	600	(*b*)						1,881		1894		
Canal street, from C to E	2,050				5,186				11,706	1891		
Water street, from P to Sixth	640	50			3,600					1876		
Water street, from Sixth to Seventh	1,500	50			8,000					1884		
Water street, from Seventh to Twelfth	2,400	50			14,000					1872		
Water street, from Twelfth to Thirteen-and-a-half	800	50			4,500					1880		
Delaware avenue, from B to G	2,000	50			2,056							
Delaware avenue, from G to K	713	50					4,116		14,772	1895		
Delaware avenue, from K to P	2,387	50										
Maine avenue, from Third to Sixth	1,220	35				4,635				1872		
Maryland avenue, from First to Third	750	60	3,394							1883		
Maryland avenue, from Third to Seventh	1,820	60				12,803				1873		
Maryland avenue, from Ninth to Water	4,700	60			29,050					1875		
Virginia avenue, from South Capitol to Four-and-a-half	2,400								13,580			
Virginia avenue, from Four-and-a-half to Seventh	1,170				1,722							
Virginia avenue, from Ninth to Twelfth	1,320				3,836					1881		
Georgia avenue, from South Capitol to Canal	1,800	50							8,888			
SOUTHEAST.												
South Capitol street, from B (east half) to Canal	1,450	50							3,419			
South Capitol street, from Canal to H	1,050	50			2,827					1894		
South Capitol street, from H to M	1,300	50							3,594			

South Capitol street, from M to N	600	50				1,623			6,166		
South Capitol street, from N to river	2,300	50							11,380		
Half street, from Virginia avenue to river	3,400	32									
First street, from East Capitol to B	700	45	4,412							1873	{1879 / 1896} Coal tar.
First street, from B to C	500	38			2,152					1880	
First street, from C to D	400	35						1,200		1880	
First street, from D to E	576	35	2,001							1895	
First street, from E to river	3,174	32							2,100		
Heckman street, from First and Second to public square	640	30							10,341		
Second street, from East Capitol to Pennsylvania avenue.	700	32	2,311							1881	
Second street, from Pennsylvania avenue to D	1,200	35	4,906							1882	
Second street, from D to Virginia avenue	800	32					2,888		3,932		
Second street, from Virginia avenue to I	450	32					1,216			1892	
Second street, from I to river	2,000	32							4,620		
Third street, from East Capitol to Pennsylvania avenue	910	32	3,521							1884	
Third street, from Pennsylvania avenue to C	310	32						987		1887	
Third street, from C to D	620	32			2,572					1882	
Third street, from D to Virginia avenue	1,440	32			5,030					1876	
Third street, from Virginia avenue to K	650	32			2,484					1890	
Third street, from K to L	270	32					800				
Third street, from L to Georgia avenue	1,250	32				4,461			858	1877	
Fourth street, from East Capitol to Pennsylvania avenue.	1,100	35	3,764							1883	c 1896
Fourth street, from Pennsylvania avenue to North Carolina avenue.	200	35						593		1890	
Fourth street, from North Carolina avenue to river	4,030	35				16,760				1876	
Fifth street, from East Capitol to Pennsylvania avenue	1,140	40	4,916							1882	
Fifth street, from intersection of C								693		1890	
Fifth street, from Pennsylvania avenue to E	750	32	2,570							1894	
Fifth street, from E to river	3,000	32							10,585		
Sixth street, from East Capitol to Pennsylvania avenue	1,380	35						5,949		1886	
Sixth street, from Pennsylvania avenue to E	730	35						4,390		1887	
Sixth street, from E to Virginia avenue	1,330	35						4,775		1889	
Sixth street, from Virginia avenue to K	300	35							926		
Seventh street, from East Capitol to Pennsylvania avenue.	1,730	32						7,223		1887	
Seventh street, from D to Virginia avenue	2,100	35						8,394		1889	
Seventh street, from Virginia avenue to M	750	32					1,785			1890	
Eighth street, from East Capitol to B	475	40	2,408							1895	
Eighth street, from B to D	1,045	40	4,765							1894	
Eighth street, from D to K	2,200	55	9,182							1884	
Eighth street, from K to M	720	55	2,929							1883	
Ninth street, from East Capitol to I	4,220	32					11,423			1890	
Ninth street, from I to Eastern Branch	2,490	32							8,366		
Tenth street, from East Capitol to D	1,800	32					4,000			1890	
Tenth street, from D to Pennsylvania avenue	1,270							788		1891	
Tenth street, from Pennsylvania avenue to I	1,240							4,778		1896	
Tenth street, from I to Eastern Branch	4,600	32							8,022		
Eleventh street, from East Capitol to C	1,480	48						8,076		1891	

a Permit work.

b Two roadways, 40 feet each.

c Resurfaced on asphalt block.

TABLE F.—*Statement of character and extent of street pavements July 1, 1897*—Continued.

SOUTHEAST—Continued.

Locality.	Carriageway.											Resurfaced; originally paved with—
	Length.	Width.	Asphalt.	Coal tar and concrete.	Granite.	Cobble and blue rock.	Macadam.	Asphalt block.	Gravel and unimproved.	Year paved.	Year resurfaced.	
	Feet.	*Feet.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*			
Eleventh street, from C to Pennsylvania avenue	1,208	48						7,006		1893		
Eleventh street, from Pennsylvania avenue to bridge	3,900	40			15,451					1889		
Eleventh street, from M to river (west side)	1,700	56			4,367					1882		
Twelfth street, from Lincoln Square to river	5,640	35							17,956			
Thirteenth street, from East Capitol to D	2,050	35							6,644			
Thirteenth street, from D to Pennsylvania avenue	800	35					2,638					
Thirteenth street, from Pennsylvania avenue to river	2,450	35							9,538			
Fourteenth street, from East Capitol to river	4,700	45							23,500			
Fifteenth street, from East Capitol to river	4,500	45							22,500			
Sixteenth street, from East Capitol to Kentucky avenue	3,300	35							12,833			
Seventeenth street, from East Capitol to river	3,300	35							12,833			
Eighteenth street, from East Capitol to Congressional Cemetery	2,300	35							8,107			
Nineteenth street, from East Capitol to Congressional Cemetery	2,300	35							8,107			
Twentieth street, from East Capitol to B	700	35							2,560			
Twenty-first street, from East Capitol to B	700	35							2,560			
Twenty-second street, from East Capitol to B	700	35							2,560			
Twenty-third street, from East Capitol to B	700	35							2,560			
East Capitol street, from First (south half) to Fourth	1,500	50	2,736							1879	1889	Asphalt.
East Capitol street, from Fourth to Ninth (south half)	1,900	50	5,028							1879	1890	Do.
East Capitol street, from Ninth to Eleventh (south half)	600	50	1,786							1888		
East Capitol street, from Lincoln Square to Eastern Branch (south half)	4,280	50							12,941			
A street, from Second to Third	440	35	1,724							1881		
A street, from Third to Sixth	950	35						3,317		1886		
A street, from Sixth to Seventh	600	35						2,391		1887		
A street, from Seventh to Ninth	800	33						3,043		1894		
A street, from Massachusetts avenue to Eastern Branch	4,000	33							11,800			
A street (south side) to Lincoln Square	850	35					4,398					
B street, from South Capitol to New Jersey avenue	300	45			370					1896		

B street, from New Jersey avenue to Second street a	1,900	35	8,943							1873	1891	Coal tar.
B street, from Second to Fifth	970	35	3,810							1881		
B street, from Fifth street to North Carolina avenue	870	35		3,514						1887		
B street, from North Carolina avenue to Eleventh street.	1,340	35						4,577		1891		
B street, from Eleventh to Nineteenth	3,600	35					16,455			1891		
B street, from Nineteenth street to Eastern Branch	1,400	25							4,622			
Carroll street, between B and C, First and Second	650	24	1,416							1898		
C street, from South Capitol to New Jersey avenue	360	32	948							1889		
C street, from New Jersey avenue to Fourth street	1,960	32						6,922		1884		
C street, from Fourth to Sixth	520	32						1,464		1890		
C street, from Sixth to Seventh	600	32						2,142		1890		
C street, from Fourth to Sixth	500	32						1,614		1891		
C street, from Seventh to Eleventh	1,200	32					4,573			1889		
C street, from Eleventh to Nineteenth	4,000	32	1,178						10,222			
D street, from South Capitol to First	454	35	3,274							1898		
D street, from First to Third	970	35						4,394		1889		
D street, from Third to Sixth	980	35						3,860		1890		
D street, from Sixth to Seventh	580	35				1,890				1874		
D street, from Seventh street to Pennsylvania avenue	1,000	35						1,951		1892		
D street, from Pennsylvania avenue to Nineteenth street.	4,550	35							17,810			
D street, from Second to (south side) Third	370	35	1,454							1890		
Ivy street, from D and E to New Jersey avenue and South Capitol.	530	34							2,131			
E street, from South Capitol to Third	1,900	35							5,608	1895		
E street, from Third street to Pennsylvania avenue	2,950	35					12,486			1885		
E street, from Pennsylvania avenue to Thirteenth street.	720	35	4,511							1898		
E street, from Thirteenth to Nineteenth	3,200	35	2,113						9,245			
G street, from Third to Eleventh	2,950	36					7,627			1885		
G street, from Eleventh to Pennsylvania avenue	850	36						1,730		1891		
G street, from Pennsylvania avenue to Seventeenth street.	1,875	36				2,387	3,737			1898		
I street, from South Capitol to Second	1,500	25							3,698			
I street, from Second to Third	400	35					1,220			1892		
I street, from Third to Eighth	1,820	35					5,563			1891		
I street, from Eighth to Georgia avenue	1,800	35	3,645						8,355	1898		
K street, from South Capitol to Eastern Branch	7,600	35							27,223			
L street, from South Capitol to Eastern Branch	7,600	35							27,533			
Van street, between New Jersey avenue and First, M and N.	550	25							1,445			
M street, from South Capitol to Fourth	2,400	35				8,944						
M street, from Fourth to Eastern Branch	4,600					8,454			6,327			
Quander street, between M and N, New Jersey avenue and First.	440	25							1,555			
N street, from South Capitol to Third	2,080	35				4,057						
N street, from Third to Twelfth	1,600	35							5,202			
O street, from South Capitol to Eastern Branch	2,400	35							3,200			
Walter street, between B and C, Twelfth and Thirteenth.	510	30							1,667			

a Widened, First to Second streets.

TABLE F.—*Statement of character and extent of street pavements July 1, 1897*—Continued.

SOUTHEAST—Continued.

Locality.	Carriageway.											Resurfaced: originally paved with—
	Length.	Width.	Asphalt.	Coal tar and concrete.	Granite.	Cobble and blue rock.	Macadam.	Asphalt block.	Gravel and unimproved.	Year paved.	Year resurfaced.	
	Feet.	*Feet.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*			
Georgia avenue, from South Capitol to Nineteenth	7,500	50							42,010			
Kentucky avenue, from Lincoln Square to Eastern Branch.	4,350	50							24,445			
Massachusetts avenue, from Thirteenth to Nineteenth	3,600	50							19,500			
New Jersey avenue, from B to E street	1,600	50			8,776					1879		
New Jersey avenue, intersection of B street					605					1878		
New Jersey avenue, from Canal to M street	1,400	50					6,868					
New Jersey avenue, from M to N street	700	50							3,112			
North Carolina avenue, from First to Third street	700	50							7,590			
North Carolina avenue, from Third to Sixth street	970	50						5,033		1890		
North Carolina avenue, from Sixth to Eighth street	1,400	50						6,378		1891		
North Carolina avenue, from Eighth to Eleventh	1,100	50						6,480		1892		
Pennsylvania avenue, intersection of Second street			2,028							1879		
Pennsylvania avenue, from Second to Fourth street	1,900	(a)	4,458							1879		
Pennsylvania avenue, from Second to Eighth street	3,600	(a)	14,775							1876	1882	Coal tar.
Pennsylvania avenue, from Fourth to Seventh street	1,400	(a)	6,126							1879		
Pennsylvania avenue, from Eighth to Eleventh street	1,100	(a)	5,320							1883		Asphalt (south side).
Pennsylvania avenue, from Eighth to Eleventh street	1,000	(a)	5,400							1888		Asphalt (north side).
Pennsylvania avenue, from Eleventh to Bridge street	6,800	(a)					20,147			1880		
South Carolina avenue, from Second to Sixth street	800								9,439			
South Carolina avenue, from Sixth to Seventh street	700	50						3,288		1891		
South Carolina avenue, from Seventh to Ninth street	700	29	1,572							1896		
South Carolina avenue, from Ninth street to Massachusetts avenue.	3,200	50							17,777			
Virginia avenue, from Second to Third street	300	50					2,354			1889		
Virginia avenue, from Third to Eleventh street	3,010	50							10,000			
Virginia avenue, from Eleventh street to Eastern Branch.	1,800	50							9,000			

NORTHEAST.

North Capitol street, from B (east side) to C		50	1,395							1883		
North Capitol street, from C (east side) to D		50							1,050			
North Capitol street, from D (east side) to E		50			1,198					1803		
North Capitol street, from E (east side) to Massachusetts avenue.		50		1,928						1889		
North Capitol street, from Massachusetts avenue (east side) to I.		50	3,728							1887		
North Capitol street, from I (east side) to K		50	1,443							1889		
North Capitol street, from K (east side) to M		50	3,103							1892		
North Capitol street, from M (east side) to New York avenue.		50	1,105									
North Capitol street, from New York avenue (east side) to O.		50	832							1894		
North Capitol street, from O (east side) to Florida avenue.		50							1,233			
Hancock street, between North Capitol and First, F and G.	540	24							1,635			
First street, from East Capitol to B	750	50	4,412							1873	{1879 / 1896}	Coal tar.
First street, from B to C	520	35	1,987							1881		
First street, from C to F	1,320	35	5,616							1891		
First street, from F to Florida avenue	4,300	35							15,277			
Colfax street, from First and Second to L and M	660	30							2,167			
Second street, from East Capitol to Maryland avenue	720	32	2,440							1881		
Second street, from Maryland avenue to C	550	32						1,846		1881		
Second street, from C to F	1,280	30						4,323		1894		
Second street, from F to H	980	32	3,885									
Second street, from H to Florida avenue	2,900	32							10,247			
Parker street, between Second and Third, I and K	380	24							1,000			
Third street, from East Capitol to Maryland avenue	970	32	3,121							1884		
Third street, from Maryland avenue to C	300	32						1,090		1887		
Third street, from C to F	1,280	32	4,314							1890		
Third street, from F to H	1,000	32	3,834							1892		
Third street, from H to Florida avenue	2,690	32							8,640			
Fourth street, from East Capitol to Maryland avenue	1,130	35						4,526		1885		
Fourth street, from Maryland avenue to Massachusetts avenue.	370	35						1,912		1887		
Fourth street, from Massachusetts avenue to D	240	35						837		1891		
Fourth street, from D to H	1,955	35							7,247			
Fourth street, from H to K	790	35	3,022							1894		
Fourth street, from K to Florida avenue	1,653	35							6,068			
Fifth street, from East Capitol to C	1,120	40						4,816		1886		
Fifth street, from C to D	220	40						875		1890		
Fifth street, from D to Florida avenue	4,200	40							16,495			
Sixth street, from East Capitol to Maryland avenue	1,520	35						4,626		1886		
Sixth street, from Maryland avenue to D	220	35						2,836		{1891 / 1897}		
Sixth street, from D to Florida avenue	4,150	35							14,645			

a Two roadways, 38 feet each.

TABLE F.—*Statement of character and extent of street pavements July 1, 1897*—Continued.

NORTHEAST—Continued.

Locality.	Carriageway.											Resurfaced; originally paved with—
	Length.	Width.	Asphalt.	Coal tar and concrete.	Granite.	Cobble and blue rock.	Macadam.	Asphalt block.	Gravel and unimproved.	Year paved.	Year resurfaced.	
	Feet.	*Feet.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*			
Lowndes street, between Sixth and Seventh, L and M	1,720	30							2,100			
Seventh street, from East Capitol to Massachusetts avenue	800	32						3,340		1887		
Seventh street, from Massachusetts avenue to D	930	32						3,315		1889		
Seventh street, from D to Florida avenue	3,820	32							11,215			
Eighth street, from East Capitol to Massachusetts avenue	630	40						2,969		1889		
Eighth street, from B to Maryland avenue	1,230	40						5,858		1891		
Eighth street, from Maryland avenue to I	2,020	40							7,963			
Eighth street, from I to K	400	40					1,747			1891		
Eighth street, from K to Florida avenue	880	40							3,697			
Ninth street, from East Capitol to Massachusetts avenue	480	32	1,218							1893		
Ninth street, from Massachusetts avenue to Maryland avenue	1,800	32						6,702		1891		
Ninth street, from Maryland avenue to H	1,480	32	5,781							1891		
Ninth street, from H to Florida avenue	1,440	32							4,988			
Tenth street, from East Capitol to G	2,726	32							10,298			
Tenth street, from G to H	470	32	2,061							1893		
Tenth street, from H to Florida avenue	1,196	32							4,244			
Eleventh street, from Massachusetts avenue to Maryland avenue	1,988	32							6,716			
Eleventh street, from Maryland avenue to Florida avenue	2,512	32					9,191					
Eleventh street, from East Capitol to Massachusetts avenue	230	32						1,093		1895		
Twelfth street, from Lincoln Square to B	368	35	502							1895		
Twelfth street, from B to Maryland avenue	2,147	35							8,798			
Twelfth street, from Maryland avenue to Florida avenue	1,880	32					7,103			1890		
Thirteenth street, from Maryland avenue to Emerson	500	35	a 1,907							1892		
Thirteenth street, from East Capitol to Florida avenue	3,670	32							14,898			

Elliot street, between Thirteenth and Fourteenth, F and Maryland avenue.	480	22						1,500			
Emerson street, between Thirteenth and Fourteenth, E and F.	700	20	a 1,949						1862		
Fourteenth street, from East Capitol to Florida avenue.	3,730	35						14,791			
Fourteen-and-a-half street, between Fourteenth and Fifteenth, D and North Carolina avenue.	920										
Florence court, between Fourteenth and Fifteenth, F and G.	530	25						1,500			
Fifteenth street, from East Capitol to Florida avenue.	3,600	35						12,196			
Sixteenth street, from East Capitol to C	1,230	35						4,196			
Seventeenth street, from East Capitol to C	1,230	35						4,196			
Eighteenth street, from East Capitol to C	1,230	35						4,196			
Nineteenth street, from East Capitol to C	1,230	35						4,196			
Twentieth street, from East Capitol to C	1,230	35						4,196			
Twenty-first street, from East Capitol to C	1,230	35						4,196			
Twenty-second street, from East Capitol to C	1,230	35						4,196			
Twenty-third street, from East Capitol to C	1,230	35						4,196			
Twenty-fourth street, from East Capitol to C	1,230	35						4,196			
Twenty-fifth street, from B to C	440	35						1,711			
East Capitol street, from First (north half) to Fourth.	1,456	50	2,737						1879	1890	Asphalt.
East Capitol street, from Fourth (north half) to Ninth.	1,950	50	3,417						1879	1889	Do.
East Capitol street, from Ninth (north half) to Eleventh.	650	50	1,786						1883		
East Capitol street, from Lincoln Square to Eastern Branch (north half).	4,400	50						12,941			
A street, from First to Second	640	35	2,788						1880		
A street, from Second to Fourth	820	35	2,972						1884		
A street, from Fourth to Seventh	1,050	35		4,206					1887		
A street, from Seventh to Ninth	750	35						2,300	1890		
A street, from North Carolina avenue to Eastern Branch.	4,200	35						17,111			
A street, north side of Lincoln Square	850		4,077						1894	1895	Macadam.
B street, from North Capitol street to Delaware avenue	220	46			1,533						
B street, from Delaware avenue to First	700	46	4,411						1873	1880	Coal tar.
B street, from First to Second	640	40		3,008					1874	1894	Do.
B street, from Second to Fourth	700	35	2,556						1884		
B street, from Fourth to Sixth	500	35	2,016						1895		
B street, from Sixth to Massachusetts avenue	500			2,250					1887		
B street, from Massachusetts avenue to Eastern Branch.	6,800	35	1,066					23,414	1896		
Park street, between B and C, Eleventh and Twelfth.	330	30						1,110			
C street, from North Capitol to Delaware avenue	420	46 61			1,107				1879		
C street, from Delaware avenue to First	500	32			2,081				1880		
C street, from First to Third	1,090	38			4,191				1882		
C street, from Third to Fourth	400	32			1,505				1884		
C street, from Fourth to Sixth	1,120	32 35						4,468	1884		
C street, from Sixth to Eighth	950	32						3,986	1888		
C street, from Eighth to Tenth	700	32						2,180	1891		

a Permit work.

TABLE F.—*Statement of character and extent of street pavements July 1, 1897*—Continued.

NORTHEAST—Continued.

Locality.	Carriageway.											Resurfaced; originally paved with—
	Length.	Width.	Asphalt.	Coal tar and concrete.	Granite.	Cobble and blue rock.	Macadam.	Asphalt block.	Gravel and unimproved.	Year paved.	Year resurfaced.	
	Feet.	*Feet.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*			
C street, from Tenth to Eastern Branch	6,280	32							19,195			
D street, from North Capitol to Delaware avenue	340	32							1,920			
D street, from Delaware avenue to Massachusetts avenue.	1,200	32	4,117							1893		
D street, from Massachusetts avenue to Maryland avenue.	1,450	32					5,446			1889		
D street, from Maryland avenue to Fifteenth	3,500	35	1,641						14,422	1897		
E street, from North Capitol to First	800	35			2,913					1893		
E street, from First to Fourth	1,420	30						5,640		1893		
E street, from Fourth to Fifteenth	4,862	35							15,439			
California street, between E and F, First and Second	640	24	a1,635							1891		
F street, from North Capitol to Third	2,000	35	8,335							1888		
F street, from Third to Fifteenth	4,642	35							17,861			
Chicago street, between F and G, First and Second	576	30							2,285			
Morris street, between F and G, Sixth and Seventh	561	30							2,000			
G street, from North Capitol to First	860	35	2,308							1890		
G street, from First to Sixth	1,800	35							6,151			
G street, from Sixth to Seventh	561	35					2,350			1891		
G street, from Seventh to Fifteenth	3,606	40	552						10,380	1897		
Jackson street, between G and H, North Capitol and First.	750	20				1,738						
James street, between G and H, Twelfth and Thirteenth.	450	30							1,151			
H street, from North Capitol to First	850	56	4,190							1893	1891	Asphalt.
H street, from First to Fifteenth	6,320	56	14,124							1893	b1893	Asphalt (north side).
Do		56	13,662							1890	1893	Asphalt (south side).
Wylie street, between H and I, Twelfth and Thirteenth	450	24							1,360			
I street, from North Capitol to First	840	35	3,295							1889		
I street, from First to Sixth	1,780	35							7,531			
I street, from Sixth to Seventh	561	35					1,779			1890		
I street, from Seventh to Florida avenue	2,587	35							8,058			
Myrtle street, between North Capitol and First, I and K	850	20	1,426							1889		

K street, from North Capitol to First										1889	
K street, from First to Florida avenue	850	50	4,498						23,436		
Fenton street, between North Capitol and First, K and L.	3,520 850	50 24							2,220		
Callan street, between K and L, Sixth and Seventh	561								1,267		
L street, from North Capitol to Florida avenue	850	35							15,154		
Forsyth street, between North Capitol and First, L and M.	850	25							2,220		
Babcock street, between L and M, North Capitol and First.	850	25							2,220		
Riley street, between L and M, North Capitol and First	850	25							2,220		
M street, from North Capitol to Second	1,468	32	5,486							1894	
M street, from Second to Florida avenue	1,730	32	7,183							1896	
Patterson street, between M and N, North Capitol and Second.	1,480	25							6,045		
Morton place, between Sixth and Seventh streets, M and L.	850	25							2,100		
N street, from North Capitol to Florida avenue	2,270	35							7,800		
Decatur street, between P and O, North Capitol and First.	747	25							1,245		
Orleans street, between L and M, Sixth and Seventh	561	30							2,100		
O street, from North Capitol to Florida avenue	1,250	35							4,622		
P street, from North Capitol to Florida avenue	700	32	2,539							1896	
Delaware avenue, from B to C street	590	50			2,056					1879	
Delaware avenue, from C street to Florida avenue	5,300	50							27,112		
Florida avenue, from North Capitol to New York avenue.	1,300	46							6,644		
Florida avenue, from New York avenue to Brentwood road,	700						3,040			1895	
Florida avenue, from New York avenue to Ninth street.	3,140	46					6,314		10,095	1897	
Florida avenue, from Ninth to Fifteenth street	3,060	46					17,005			1892	
Maryland avenue, from First to Fourth street	1,650	60						11,535		1887	
Maryland avenue, from Sixth to Eleventh street	2,170	60						14,951		1889	
Maryland avenue, from Eleventh to Thirteenth street	1,070	60						8,269		1890	
Maryland avenue, from Thirteenth to Fifteenth street	1,040	60						9,635		1891	
Maryland avenue, from intersection of Fifteenth street.	230	60			2,527					1889	
Massachusetts avenue, from North Capitol to First street.	950	50	4,069							1892	
Massachusetts avenue, from First to Second street	720	51						3,961		1893	
Massachusetts avenue, from Second to Fourth street	700		6,001							1895	
Massachusetts avenue, from Sixth to Eighth street	1,060	50						6,749			
Massachusetts avenue, from Eighth to Eleventh street	980	50						6,398		1895	
New York avenue, from North Capitol street to Florida avenue.	1,370	50	5,393							1891	
North Carolina avenue, from Lincoln Square to C street.	2,060	50							11,110		
Tennessee avenue, from Lincoln Square to Fifteenth street.	2,090	50							17,222		

a Permit work.

b Second to Seventh street.

TABLE F.—*Statement of character and extent of street pavements July 1, 1897*—Continued.

GEORGETOWN.

Locality.	Carriageway.											Resurfaced; originally paved with—
	Length.	Width.	Asphalt.	Coal tar and concrete.	Granite.	Cobble and blue rock.	Macadam.	Asphalt block.	Gravel and unimproved.	Year paved.	Year resurfaced.	
	Feet.	*Feet.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*			
Water street, from Rock Creek to Aqueduct	3,600	50	.....	.....	18,021	.....	.....	.....	.....	1875	.....	
South Water street, between Water and M, **Thirty-first** and Thirty-second.	420	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Grace street, from Potomac to Thirty-second	670	20	.....	.....	.....	1,228	.....	.....	.....	1873	.....	
M street, from Twenty-eighth to Thirty-first	1,700	50	.....	7,887	.....	.....	.....	.....	.....	1875	1888	Coal tar.
M street, from Thirty-first to Thirty-sixth	2,300	50	7,771	.....	4,451	.....	.....	.....	.....	1875	1896	
M street, from Thirty-seventh to Thirty-eighth	300	50	.....	.....	.....	.....	1,720	.....	.....	1876 1877	.....	
Olive street, from Rock Creek to Twenty-eighth street	500	44	.....	.....	.....	.....	.....	.....	1,566	.....	.....	
Olive street, from Twenty-eighth to Thirtieth	480	30	.....	.....	.....	1,946	.....	.....	.....	1872	.....	
Prospect street, from Thirty-second to Thirty-third	820	30	2,789	.....	.....	.....	.....	.....	.....	1891	.....	
Prospect street, from Thirty-third to Thirty-fifth	850	30	2,918	.....	.....	.....	.....	.....	.....	1890	.....	
Prospect street, from Thirty-fifth to Thirty-sixth	370	30	966	.....	.....	.....	.....	.....	.....	1891	.....	
Prospect street, from Thirty-sixth to Thirty-eighth	670	30	.....	.....	.....	.....	.....	.....	2,089	.....	.....	
N street, from Rock Creek to Twenty-seventh street	300	30	.....	.....	.....	.....	.....	.....	870	.....	.....	
N street, from Twenty-seventh to Twenty-eighth	320	30	.....	.....	.....	959	.....	.....	.....	1874	.....	
N street, from Twenty-eighth to Thirtieth	540	30	1,604	.....	.....	.....	.....	.....	.....	1882	1896	Surfaced on asphalt block.
N street, from Thirtieth to Thirty-second	1,100	30	3,525	.....	.....	.....	.....	.....	.....	1880	.....	
N street, from Thirty-second to Thirty-fifth	1,640	30	5,889	.....	.....	.....	.....	.....	.....	1880	.....	
N street, from Thirty-fifth to Thirty-sixth	430	30	1,061	.....	.....	.....	.....	.....	.....	1891	.....	
N street, from Thirty-sixth to Thirty-eighth	650	30	.....	.....	.....	.....	.....	.....	2,089	.....	.....	
O street, from Rock Creek to Twenty-eighth street	980	30	.....	.....	.....	.....	.....	.....	2,847	.....	.....	
O street, from Twenty-eighth to Twenty-ninth	300	30	880	.....	.....	.....	.....	.....	.....	1890	.....	
O street, from Twenty-ninth to Thirty-second	1,590	30	4,829	.....	.....	.....	.....	.....	.....	1885	.....	
O street, from Thirty-second to Thirty-fifth	1,500	30	.....	.....	4,435	.....	.....	.....	.....	1879	.....	
O street, from Thirty-fifth to college gate	730	30	.....	2,398	.....	.....	.....	.....	.....	.....	1888	Coal tar.
Dumbarton avenue, from Rock Creek to Twenty-seventh street.	450	30	.....	.....	.....	1,250	.....	.....	.....	.....	.....	
Dumbarton avenue, from Twenty-seventh to Twenty-eighth street.	375	30	.....	.....	.....	.....	.....	.....	1,500	.....	.....	
Dumbarton avenue, from Twenty-eighth to Thirty-second street.	1,760	30	.....	3,609	.....	.....	.....	.....	.....	1887	.....	

P street, from 340 feet west of bridge	340	80	1,590						1879		
P street, from Rock Creek to Twenty-eighth street	1,600	80			6,869				1878		
P street, from Twenty-eighth to Thirty-second	2,000	80			2,043				1879		
P street, from Twenty-eighth to Thirty-second		80			1,969				1879		
P street, from Thirty-second to Thirty-fifth	1,370	80			3,624				1884		
P street, from Thirty-fifth to Thirty-seventh	660	80						2,084			
Bank street, between M and Prospect, to Thirty-third and Thirty-fourth	250										
Aqueduct street, from M street to bridge	330										
Mill street, from P to North	600	80					1,500				
North street, from P to Mill	400	80						1,500			
Q street, from Twenty-eighth to Thirtieth	550	80	2,000						1889		
Q street, from Thirtieth to Valley	1,200	80		3,943					1887		
Q street, from Valley to Thirty-second	300	80		1,067					1887		
Q street, from Thirty-second to Thirty-fifth	1,230	80	4,008						1891		
R street, from Thirty-second to Thirty-fifth	1,000	80						3,365			
S street, from Thirty-second to Thirty-fifth	750	80						2,577			
T street, from Thirty-second to Thirty-fifth	750	80						2,567			
U street, from Twenty-eighth to Thirty-first	1,720	80						6,750			
U street, from Thirty-first to Thirty-second	1,860	80	4,227						1895		
U street, from Thirty-second to Thirty-fifth	600	80	1,552						1894		
Cambridge place, Irvin place, and Avon place in Cooke Park.	1,410	25	a 4,008						1898		
Twenty-seventh street, from M to P	1,420	80						4,750			
Twenty-eighth street, from Rock Creek to M street	400	80									
Twenty-eighth street, from M to P	1,420	80	4,428						1872	1894	Cobble.
Twenty-eighth street, from P to Q	400	80	1,474						1890		
Twenty-eighth street, from Q to U	690	80						3,116			
Twenty-ninth street, from Water to M	850	80				2,919			1874		
Twenty-ninth street, from M to N	550	80			1,885				1882		
Twenty-ninth street, from N to P	850	80	2,969						1883	1898	Asphalt block.
Twenty-ninth street, from P to Q	370	80	1,261						1890		
Twenty-ninth street, from Q to U	700	80						4,610			
Thirtieth street, from Water to M	860	80				2,732			1875		
Thirtieth street, from M to N	550	80			2,121				1879		
Thirtieth street, from N to P	840	80	2,932						1888		
Thirtieth street, from P to Q	370	80	1,282						1888		
Thirtieth street, from Q to U	700	80			2,746				1883		
Jefferson street, between Thirtieth and Thirty-first, to Water and M.	860	80				2,889			1874		
Thirty-first street, from K to Canal	550	80				1,888			1887		
Thirty-first street, from Canal to M	340	80		1,209					1880		
Thirty-first street, from M to N	520	80			1,742				1880		
Thirty-first street, from N to P	850	80	2,987						1883	1898	Do.
Thirty-first street, from P to U	940	80	1,833		3,285				1895		
Valley street, between Thirty-first and Thirty-second, to P and U.	550						3,849		1895		
Thirty-second street, from Water to M	1,500	80				3,540					
Thirty-second street, from M to P	860	80			6,768				1879		
Thirty-second street, from P to U	1,560	80				6,416			1894		
Potomac street, from Canal to M	650	80				1,071			1875		

a Permit work.

TABLE F.—*Statement of character and extent of street pavements July 1, 1897*—Continued.

GEORGETOWN—Continued.

Locality.	Carriageway.											Resurfaced; originally paved with—
	Length.	Width.	Asphalt.	Coal tar and concrete.	Granite.	Cobble and blue rock.	Macadam.	Asphalt block.	Gravel and unimproved.	Year paved.	Year resurfaced.	
	Feet.	*Feet.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*			
Potomac street, from M to Prospect	320	30	.....	.....	389	.....	.....	.....	.....	1879	.....	
Potomac street, from Prospect to O	600	30	1,840	.....	.....	.....	.....	.....	.....	1884	.....	
Potomac street, from M to Prospect	320	30	.....	.....	664	.....	.....	.....	.....	1884	.....	
Thirty-third street, from M to Water	500	30	.....	.....	.....	.....	.....	.....	1,660	.....	.....	
Thirty-third street, from M to N	550	30	1,580	.....	.....	.....	.....	.....	.....	1890	.....	
Thirty-third street, from N to P	620	30	2,050	.....	.....	.....	.....	.....	.....	1883	.....	
Thirty-third street, from P to Thirty-second	1,300	.....	4,675	.....	.....	.....	.....	.....	.....	1890	.....	
Thirty-fourth street, from Water to M	350	30	.....	.....	.....	.....	.....	.....	1,066	.....	.....	
Thirty-fourth street, from M to N	550	30	1,660	.....	.....	.....	.....	.....	.....	1890	.....	
Thirty-fourth street, from N to P	600	30	2,109	.....	.....	.....	.....	.....	.....	1892	.....	
Thirty-fourth street, from P to R	680	30	2,265	.....	.....	.....	.....	.....	.....	1891	.....	
Thirty-fourth street, from R to Thirty-second	1,800	30	.....	.....	.....	.....	6,570	.....	.....	.....	.....	
Thirty-fifth street, from Water to M	270	30	.....	.....	.....	.....	.....	.....	660	.....	.....	
Thirty-fifth street, from M to Prospect	250	35	.....	.....	.....	975	.....	.....	.....	.....	.....	
Thirty-fifth street, from Prospect to N	270	35	1,017	.....	.....	.....	.....	.....	.....	1890	.....	
Thirty-fifth street, from N to P	700	35	.....	2,929	.....	.....	.....	.....	.....	1889	.....	
Thirty-fifth street, from P to Q	350	35	.....	1,558	.....	.....	.....	.....	.....	1887	.....	
Thirty-fifth street, from Q to U	1,440	35	5,749	.....	.....	.....	.....	.....	.....	1890	.....	
Thirty fifth street, from U to Tenley road	1,400	35	6,009	.....	.....	.....	.....	.....	.....	1891	.....	
Thirty-sixth street, from M to Prospect	260	30	.....	.....	.....	.....	.....	.....	800	.....	.....	
Thirty sixth street, from Prospect to O	670	30	2,368	.....	.....	.....	.....	.....	.....	1891	.....	
Thirty-sixth street, from O to Q	650	30	.....	.....	.....	.....	.....	.....	2,200	.....	.....	
Thirty-seventh street, from M to Q	1,650	30	.....	.....	.....	.....	.....	.....	4,167	.....	.....	
High (Thirty-second) street, from Thirty-fifth to Tunlaw road	2,121	.....	.....	.....	6,076	.....	.....	.....	.....	1893	.....	
SUBURBAN (NORTHWEST).												
First street extended, from R to S	447	35	*a* 1,898	.....	.....	.....	.....	.....	.....	1892	.....	
First street extended, from Florida avenue to R to S to T.	625	35	.....	.....	.....	.....	2,575	.....	.....	1891	.....	

Le Droit avenue, from Florida avenue to Maple	1,055	35	a 4,419							1892	
Le Droit avenue, from Maple to W street	405	35	a 1,632							1892	
Linden street, from Florida avenue northward	429	35	1,571							1891	
Linden street, from end of pavement to Maple avenue	147	35	574							1892	
Larch street, from Florida avenue to Maple	423	32	1,516							1890	
Larch street, from Maple avenue to Spruce street	191	32	734							1891	
Maple avenue, from Florida avenue to Linden street	810	32	3,227							1890	
Maple avenue, from Linden street to Le Droit avenue	986	32	3,680							1891	
Pomeroy street, from Fifth to Seventh	754	30	2,560							1891	
Brightwood avenue, from Florida avenue to Pomeroy street		50			733					1890	
Brightwood avenue, from Florida avenue northward		50			5,222					1891	
Brightwood avenue, from Grant street to Irving	4,490	56			6,295					1889	
Brightwood avenue, from Irving street to Steuben		56			2,749					1891	
Brightwood avenue, from Irving street northward		56			3,040					1898	
Fourteenth street extended, from Florida avenue to Yale street.		56	7,365							1889	
Fourteenth street extended, from Yale street northward.	3,650	56	3,725							1891	
Fourteenth street extended, from end of pavement northward.		56	4,307							1892	
Fourteenth street, Kenyon to Whitney avenue	200	56	486							1894	
Eighteenth street, Florida avenue to Columbia road	2,040		4,634							1894	
Clifton street, from Fourteenth street extended eastward.	665	30	2,221							1891	
Stoughton street, from Fourteenth street extended to Fifteenth.	700	30	1,100		755			a 483		1889	
Chapin street, from Fourteenth to Columbia road	857	30	1,702		674			a 483		1892	
Welling place, from Fourteenth street to University place.	529	30	a 1,781							1892	
Euclid place, from Fourteenth street to University place.	500	30	1,666							1891	
Eighteenth street, from Florida avenue to Columbia road.	2,040	32	a 7,879							1891	
California street, from Eighteenth to Nineteenth	646	30	a 2,153							1891	
First street, from S to W	1,900	35	7,386							1895	
Twenty-second street, from Massachusetts avenue to R.	400	32	2,128							1895	
Streets in Meridian Hill	1,050	20					2,580			1896	
Le Roy place	330	28	1,706							1896	
Phelps place, Le Roy place to California avenue	323	32	1,004							1896	
Connecticut avenue extended	19,160 650	50	a 2,195				70,228			1891	
Champlain avenue	1,900						6,668			1894	
Linden street, from Maple avenue to Pomeroy street	1,184	33					4,672			1891	
Linden street, from Pomeroy to College	740	28					2,537			1873	
Steuben street, from Brightwood avenue to Sherman street.	786	30					2,712			1898	
Sheridan street, from Brightwood avenue to Sherman street.	780	30					2,660			1889	
New-cut road, from Thirty-fifth to Thirty-ninth street	1,210						3,695			1891	

a Permit work.

TABLE F.—*Statement of character and extent of street pavements July 1, 1897*—Continued.

SUBURBAN (NORTHWEST)—Continued.

Locality.	Carriageway.											Resurfaced; originally paved with—
	Length.	Width.	Asphalt.	Coal tar and concrete.	Granite.	Cobble and blue rock.	Macadam.	Asphalt block.	Gravel and unimproved.	Year paved.	Year resurfaced.	
	Feet.	*Feet.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds*	*Sq. yds.*	*Sq. yds.*			
New Hampshire avenue (Petworth), from Rock Creek Church road to Omaha street.	905	50	5,081	.....	.....	.....	.....	.....	.....	1892	.....	
Omaha street, from New Hampshire avenue to Fifth street.	920	35	3,536	.....	.....	.....	.....	.....	.....	1892	.....	
Massachusetts avenue, from Florida avenue to Belmont street.	3,469	.....	.....	.....	.....	.....	19,988	.....	.....	1893	.....	
Road from Broad Branch road to Chevy Chase Circle.	408	.....	.....	.....	.....	.....	7,387	.....	.....	1895	.....	
SUBURBAN (NORTHEAST).												
First street, from Q to R	137	35	2,206	(a)	.....	.....	.....	.....	.....	1891	.....	
First street, from R to alley	519	35	538	(a)	.....	.....	.....	.....	.....	1892	.....	
Second street extended, from R to T	1,024	35	4,218	(a)	.....	.....	.....	.....	.....	1891	.....	
Q street, from Lincoln avenue to First street	584	35	2,268	(a)	.....	.....	.....	.....	.....	1892	.....	Brick gutters.
Q street, from First street to Eckington place	430	35	1,666	(a)	.....	.....	.....	.....	.....	1892	.....	Do.
Third street, from R to Quincy	262	35	1,133	(a)	.....	.....	.....	.....	.....	1892	.....	Do.
Quincy street, from Third street to Eckington line	270	30	919	(a)	.....	.....	.....	.....	.....	1892	.....	Do.
Quincy street, from Lincoln avenue to Eckington place	1,088	30	3,770	(a)	.....	.....	.....	.....	.....	1891	.....	
Eckington place, from Q to R	536	24	1,560	(a)	.....	.....	.....	.....	.....	1891	.....	
Fourth street, from R to railroad track	262	35	1,022	(a)	.....	.....	.....	.....	.....	1891	.....	Granite at railroad.
R street, from Fourth street to Brentwood road	584	35	2,437	(a)	.....	.....	.....	.....	.....	1891	.....	Do.
Nichols avenue, from Harrison street, southeast (Anacostia).	.....	34	.....	.....	6,813	.....	.....	.....	.....	1889 1891	.....	
M street, from Twelfth to Trinidad avenue	850	.....	.....	.....	.....	.....	2,695	.....	.....	1894	.....	

a Permit work.

REPORT OF SUPERINTENDENT OF STREETS.

WASHINGTON, *July 20, 1897.*

SIR: I have the honor to submit herewith report of the operations of the street department for the fiscal year ended June 30, 1897:

The appropriation for "Current repairs to streets, avenues, and alleys" was $30,000. Of this amount there was expended $29,745.62. (See statement marked A.)

During the year there were 1,936 dangerous holes repaired, aggregating 10,190 square yards, at a total cost of $3,362.80.

Statement marked B is a list of the work done under the permit system, under which system the property owners requesting the improvements pay one-half the total cost, the District paying the other one-half.

Under the act of Congress of August 7, 1894, the Commissioners of the District of Columbia are empowered, whenever, in their judgment, the public health, safety, or comfort require it, to improve and repair alleys and sidewalks and pay the total cost out of the appropriation for "Assessment and permit work." One-half the cost of the work ordered under the assessment system is charged against the abutting property and becomes a lien upon said property. Statement marked C gives a list of the work which was done under the assessment system, the total amount of which is $109,601.74.

The appropriation for "Replacing curbs and sidewalks around public reservations" was $5,000, of which there was expended $4,765.22. For list of the work done under this appropriation, see statement marked D.

Statement marked E gives a list of the miscellaneous work, the cost of which was paid out of various appropriations which do not come under the jurisdiction of this department. The total cost of such work was $11,220,08.

Statement marked F gives a list of work done for parties which work is for their sole benefit, and which is paid for entirely by them. This work amounted to $62.69.

Statement G gives number of square yards and cost of repairs to cuts made by various parties during the year ending June 30, 1897.

Respectfully submitted.

H. N. MOSS,
Superintendent of Streets.

The ENGINEER COMMISSIONER, DISTRICT OF COLUMBIA.

STATEMENT A.—*Work done under the appropriation for "Current repairs to streets, avenues, and alleys" from July 1, 1896, to June 30, 1897.*

Grading	cubic yards	4,503
Flag laid	linear feet	2,319
Flag relaid	do	13,396
Curb set	do	318
Curb reset	do	6,680
Cobble	square yards	19,661
Brick sidewalk, paved	do	534
Brick sidewalk, repaved	do	4,800
Granite block, paved	do	7,423
Granite block, repaved	do	755
Vitrified brick, paved	do	496
Vitrified brick, repaved	do	53
Asphalt block, paved	do	14
Asphalt block, repaved	do	2,763
Hydraulic base	cubic yards	160
Asphalt tile, repaved	square yards	241
Cement sidewalk	do	151
Vitrified block, paved	do	809
Vitrified block, repaved	do	218
Cement tile, repaved	do	161
Sodding	do	80
Labor		$21,807.68
Material		7,937.94

STATEMENT B.—*Regular permit.*

No.	Location.	For whom done.	Grading.	Vitrified block, paved.	Curb reset.	Curb set.	Concrete base.	Brick sidewalk, paved.	Cement sidewalk.	Cement coping.	Asphalt block, paved.	Cobble, repaved.	Brick sidewalk, repaved.	Brick on edge.	Cost.
			Cu. yds.	*Sq. yds.*	*Lin. ft.*	*Lin. ft.*	*Cu. yds.*	*Sq. yds.*	*Sq. yds.*	*Lin. ft.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	
1	**Twelfth and C streets SE**	C. W. Shars		17	11		1								$29.86
3	Patterson street, between North Capitol and First NE.	H. L. Rust				44		36							55.30
4	1008, 1010, and 1012 Thirteenth street NW.	Nathanial McKay				87									70.23
5	214 Ninth street NW	A. G. Gross			9	19			34.28						65.84
6	1762 N street NW	Woodbury Blair			26				22.70						32.35
7	1760 N street NW	do			30				29.35						41.38
8	1758 N street NW	do			54				38.68						53.79
9	Corcoran Art Gallery, Seventeenth street and New York avenue NW.	Jno. S. Larcombe				700			780.17	276					1,801.87
10	**612 and 614 Twelfth street NW**	J. W. Thompson				46			99.53						176.28
11	**205 and 207 I street NW**	M. G. Emery							172.31						229.26
12	**939 Massachusetts avenue NW**	S. C. Smoot			8	20			29.97						56.48
13	**Fourteenth, between G street and New York avenue (west side) NW.**	Wm. Morrison				18									20.40
14	Ward place, between New Hampshire avenue and Twenty-second street (north side) NW.	Jas. H. Grant						72							46.59
15	911 and 913 G street NW	E. W. Donn				15			62.27						96.80
16	1526 and 1528 Seventh street NW.	Jno. I. Riordan			9	36			58.94						114.98
17	1732 Pennsylvania avenue NW.	Jos. Gawler				36			51.39						104.10
18	41 to 61, inclusive, Q street NE.	R. W. Walker & Son							182.32						235.04
19	Seventh street, between D and E streets NW.	Thos. W. Fowler			73				130.24						165.53
20	914 I street NW	Fredk. Pilling			7				25.37						33.38
21	2033 and 2035 P street NW	C. A. Langley				174			159.95						362.65
22	Alley, square 990	Henry Walter	26	48											79.97
23	16 to 46 Q street NE	F. A. Blundon							260.21						335.09
24	916 I street NW	A. F. Fox							25.81						33.06
25	705, 707, and 709 Florida avenue NW.	P. A. Sheehy				64			88.61						176.09
26	**1807 Q street NW**	J. C. Davidson							17.13						21.95
27	1611 Twenty-eighth street NW.	G. A. King							38.04						48.73
28	911 T street NW	J. H. Purdy							19.17						24.56
29	1747 E street NW	James Hayes				26			23.04						57.75
30	1703 Rhode Island avenue NW.	C. A. Spaulding							43.71						61.82
31	48 to 62 Q street NE	J. A. Blundon							184.09						237.31

32	Le Roy place, near Phelps place NW.	E. K. Rawson							33.67						37.01
33	First and O streets NE	Michl. Esch	31			152		108							205.94
34	1720 N street NW	J. C. Heald			41				29.46						42.90
35	1722 N street NW	C. S. Bradley			30				27.79						39.29
36	1303 Yale street NW	Mrs. S. E. Churchill							15.81						20.25
37	1305 Yale street NW	J. Hillman							15.81						20.25
38	1307 Yale street NW	C. C. Bryan							15.48						19.83
39	1311 Yale street NW	Jennette M. Bradley							15.72						20.14
40	1313 Yale street NW	F. N. Small							16.04						20.55
41	1315 Yale street NW	A. L. Johnson							16.34						20.93
42	1317 Yale street NW	H. O. Towles							16.25						20.82
43	1319 Yale street NW	H. H. Tallmadge							16.34						20.93
45	10 Q street NE	A. Gonard							16.34						20.93
46	8 Q street NE	A. W. Critden							16.22						20.78
47	14 Q street NE	B. Hodges							16.34						20.93
48	12 Q street NE	J. F. Clarke							16.34						20.93
49	Roanoke street, between Thirteenth and Fourteenth streets (north side) NW.	Kennedy & Davis							131.79						168.82
50	Alley, square 157	A. Lisner									43	10			84.75
51	723 Fifteenth street NW	J. V. N. Huyck				81			126.74						236.61
52	1810 Massachusetts avenue NW	Jane M. McCrabb							37.51						45.76
53	1511 Rhode Island avenue NW	Wm. P. Manning				22			21.87						47.26
54	1808 Massachusetts avenue NW	Charlotte M. Cosby							36.77						44.86
55	1822 Massachusetts avenue NW	Charlotte Bryson							44.32						54.07
56	1416 to 1432, inclusive, Thirty-sixth street NW.	I. G. Goebel	72					108							69.90
57	1436 Thirty-sixth street NW	James Conlon	7					10							9.37
58	1434 Thirty-sixth street NW	J. W. Coon	7					10							9.37
59	1440 Thirty-sixth street NW		8					10							8.80
60	Thirty-second street, between Thirty-fifth street and Tunlaw road (lot 268, square 1300) NW.	M. C. Weaver	33					99							52.27
61	1442 Thirty-sixth street NW	Sarah Barr	8					10							8.80
62	1612 Rhode Island avenue NW	Mrs. Henderson			27	5			23.32						35.57
63	1726 Fifteenth street NW	A. T. Coumbe				19			18.06						42.66
64	1732 Fifteenth street NW	W. S. Roose			6	19			17.76						40.35
65	1740 N street NW	Mary Gwynn				26			18.44						26.90
66	1800 Massachusetts avenue NW	Mrs. Van Wyck							101.15						136.92
68	1414 Thirty-sixth street NW	N. Crowley	8					10							8.80
69	Phelps place, between Le Roy and Bancroft streets NW.	Le Roy Tuttle	21						116.17						156.53
70	1237 Tenth street NW	Henry C. Jordan							15.78						20.21
71	624 N street NW	Sievers & Bro		18	9								20		32.99
72	Northeast corner Twelfth and Little B streets NW.	Peter Fersinger						345							192.82
73	Fifteenth street, between East Capitol and A (west side) SE.	M. P. Caldwell	10					49							42.71
74	1504 Twenty-first street NW	L. A. Frailey et al				20	1		18.38						42.84
75	1506 Twenty-first street NW	do				20	1		20.05						44.94
76	1508 Twenty-first street NW	do				25	1		17.95						42.22
77	1626 K street NW	James M. Ewing							44.46						56.95

STATEMENT B.—*Regular permit*—Continued.

No.	Location.	For whom done.	Grading.	Vitrified block, paved.	Curb reset.	Curb set.	Concrete base.	Brick sidewalk, paved.	Cement sidewalk.	Cement coping.	Asphalt block, paved.	Cobble, repaved.	Brick sidewalk, repaved.	Brick on edge.	Cost.
			Cu. yds.	*Sq. yds.*	*Lin. ft.*	*Lin. ft.*	*Cu. yds.*	*Sq. yds.*	*Sq. yds.*	*Lin. ft.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	
78	1321 Connecticut avenue NW	John S. Larcombe							52.10						$105.77
79	Delaware avenue, between C and D streets SW.	Thomas W. Smith		11	8		1					2			24.52
80	1138 Fifteenth street NW	American Security and Trust Co			7	65			23.54						93.59
81	1228 Sixteenth street NW	W. S. Bowen			23				26.14						36.24
83	1705 Connecticut avenue NW	C. A. Langley, agent			5	36	2		39.21						85.42
84	Alley, square 214	J. H. McKenney									63	10			111.66
85	Heckman street, between First and Second SE.	Beck & Weller				107			53.99						183.53
86	907 East Capitol street	J. Spleidt			37				23.91						35.29
87	911 East Capitol street	J. J. Appich			36				23.46						35.90
88	Harvard street, between Thirteenth and Fourteenth NW.	Charles M. Campbell							101.51						130.03
89	Princeton street, between Thirteenth and Fourteenth NW.	S. R. Scharf				15									13.85
90	2511 Fourteenth street NW	James Lansburgh							27.90						35.74
91	909 East Capitol street	Charles Childs							21.13						27.07
92	Lot 48, "Widow's Mite" subdivision.	Le Roy Tuttle	16						34.95						50.46
93	1608 K street NW	S. G. Ward							33.07						42.36
94	H street, between Eighth and Ninth NE.	W. L. Hughes							12.84						16.45
96	1629 Sixteenth street NW	John O'Donnell			30				34.79						48.50
97	2023 H street NW	Holtzclaw Bros			20				24.96						50.16
98	913 I street NW	L. Kolepenski			25				22.14						34.66
99	2025 H street NW	Holtzclaw Bros				20			22.85						47.34
100	E street, between Seventeenth and Eighteenth NW.	Corcoran Art Gallery		11			1					2	4		24.68
101	100 Fourth street (A street side) SE.	W. J. Kehoe			88				52.83						76.99
102	400 and 402 A street SE	F. A. Wood							52.61						72.90
103	116 Second street SE	Dr. J. W. Bayne			21				23.43						32.57
104	413, 415, and 417 A street, and 107, 109, and 111 Fifth street SE.	do			210				167.64						244.99
105	411 A street SE	F. S. Obold			30				25.12						36.12
106	808 Fifth street NW	Mrs. H. Reizenstein			35				20.12						30.10
107	409 A street SE	T. D. Keleher			17				13.81						19.92
108	412, 414, and 416 A street SE	Mrs. Martha Flemer			224				193.95						280.54
109	218 I street NW	M. G. Emery			21				23.45						32.40
110	220 I street NW	do			21				24.04						33.42

111	217 I street NW	E. S. McCleary			10				31.08					40.92
112	Eighth and I streets SE	F. P. Weller				50			85.31					158.15
113	440 Seventh street (E street side) SW.	S. M. Jones			10								4	4.40
114	2033 H street NW	Hannie H. Johnson			26				25.65					36.79
115	Thirty-sixth and M streets NW.	Capital Traction Co.	6			170			664.12					1,060.96
116	Fourth street and Pennsylvania avenue SE	Adam Gaddis							28.38					36.35
117	405 and 407 A street SE	F. R. Wallace							26.15					39.01
118	1721 P street NW	Henry Calver							2.18					2.79
119	1725 P street NW	John Tweedale							3.25					4.17
122	219 I street NW	John S. Edwards							36.85					47.21
123	1767 Q street NW	J. B. Wight			29				26.61					37.50
124	919 S street NW	M. C. Figg							22.69					29.06
125	1821 and 1823 Phelps place NW	B. H. Warner & Co							32.24					41.30
126	921 S street NW	J. C. Weir							23.78					30.46
127	627 and 629 L street SE	John H. Voorhees	8					64						33.28
129	923 S street NW	J. O. Manson							21.83					27.96
130	T street, between Sixteenth street and New Hampshire avenue NW.	George S. Cooper			25									4.66
131	Thirty-fourth street, between N and O NW.	Ed. Forrest											12	3.15
135	Twelfth and D streets NE	Henry Kerns	3				2				14			30.05
	Total		264	105	1,298	2,137	10½	981	5,885.27	276	120	24	24	16	10,966.18

STATEMENT C.—*Assessment work.*

No.	Location of work.	Grading.	Vitrified block, paved.	Asphalt block, paved.	Asphalt block, repaved.	Cement sidewalk.	Brick sidewalk, paved.	Brick sidewalk, repaved.	Cobble.	Curb set.	Curb reset.	Granite block, repaved.	Cement coping.	Cost.
		Cu. yds.	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Lin. ft.*	*Lin. ft.*	*Sq. yds.*	*Lin. ft.*	
1	Alley, square 17		1,245											$3,976.76
2	Alley, square 307	119	190											341.52
7	W street, between Twelfth and Thirteenth (north side) NW.					356.58								458.27
8	Florida avenue, between New York avenue and Brentwood road (south side) NE.	315					590							247.49
9	First street, between O and P street (both sides) NW.						500							373.47
10	Delaware avenue, from G to K street (both sides) SW.	388					1,082							628.77
11	Fifteenth street, between E and Gales (east side) NE.	755					647							444.51
12	Fifth street, between F and H (both sides) NE.	2,044					1,768		24	1,963	188			2,858.95

STATEMENT C.—*Assessment work*—Continued.

No.	Location of work.	Grading.	Vitrified block, paved.	Asphalt block, paved.	Asphalt block, repaved.	Cement sidewalk.	Brick sidewalk, paved.	Brick sidewalk, repaved.	Cobble.	Curb set.	Curb reset.	Granite block, repaved.	Cement coping.	Cost.
		Cu. yds.	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Lin. ft.*	*Lin. ft.*	*Sq. yds.*	*Lin. ft.*	
13	S street, between Fifteenth and Johnson streets (south side) NW					263.89				351	14			$683.06
14	Kentucky avenue, between Lincoln Park and B street (east side) SE	518					989			619	42			1,081.32
15	Olive avenue, between Twenty-ninth and Thirtieth (south side) NW						385		13	275	32	4		471.71
18	E street, between North Capitol street and Delaware avenue (north side) NE	112					336							230.79
22	G street, between Twelfth and Thirteenth (south side) NW					340.44					50			444.47
23	G street, between Twelfth and Thirteenth (north side) NW					545.76					142			717.93
24	Twelfth street, between F and G (west side) NW					299.34					130			399.87
26	Alley, square 212	64	718							12				1,075.14
27	Twelfth street, between F and G (east side) NW					383.40					162			515.92
28	Ninth street, between E and F (west side) NW					77.48								99.26
29	Ninth street, between D and E (west side) NW					41.68								53.39
33	Alley, square 1041	1,233												218.75
35	Kentucky avenue, between Lincoln and B streets SE	547					984							559.24
37	Alley, block 18, Howard University subdivision, NW	1,004	1,403											2,351.63
38	Alley, square 995	84		193										450.48
39	Alley, square 175	673	1,310											2,008.89
40	Connecticut avenue, between Q and Twentieth streets (east side) NW					367.13				381				789.22
41	Twentieth street, between Connecticut avenue and R street (east side) NW					83.01				96				180.51
42	Connecticut avenue, between Twentieth and R streets (west side) NW					189.68				188				393.50
44	Alley, square 68	5,823		2,280										4,673.28
45	Connecticut avenue, between Rhode Island avenue and Eighteenth street, and Eighteenth street, between Connecticut avenue and N street NW					530.04				260				1,016.13
46	Thirteenth street, between L and Massachusetts avenue (both sides) NW					615.46				698.85	38			1,387.39
47	Massachusetts avenue, between Fourteenth and Fifteenth (south side) NW					470.65					309			693.48
48	Alley, square 949	1,308		1,480						58				2,749.08
50	Alley, square 557 (south half)			960										1,575.88

51	H street, between Fifteenth and Madison place (south side) NW					261.77								353.41
52	P street, between North Capitol and First (both sides) NE	45					567							302.69
53	New Hampshire avenue, between Seventeenth and T (east side) NW					242.49					37			315.23
54	New Hampshire avenue and Eighteenth street, between Q and R (west side) NW					249.44					108			343.42
55	New Hampshire avenue, between R and S (west side) NW					417.48					85			551.18
56	New Hampshire avenue, between S and T (west side) NW					280.30					15			364.36
57	New Hampshire avenue, between R and S (east side) NW					431.56					125			572.79
58	New Hampshire avenue, between Eighteenth and R (east side) NW					371.67					14			477.92
59	Massachusetts avenue, between Seventeenth and Eighteenth (north side) NW					1,014.59								1,402.65
60	Rhode Island avenue, between Seventeenth and Connecticut avenue (north side) NW					286.24								397.26
61	Massachusetts avenue, between Seventeenth and Eighteenth (south side) NW					1,234.60								1,648.85
62	Rhode Island avenue, between Seventeenth and M (south side) NW					321.84								450.98
66	Ninth street, between R and T (east side) NW					1,285.85				1,042	21			2,753.96
67	Fourteenth street, between U and Florida avenue (both sides) NW					2,153.74				28	1,564			2,969.16
68	Fourteenth street, between U and V (east side) NW					605.67					350			824.13
69	Seventeenth street, between T and Willard street (west side) NW					108.28				139				279.46
70	Fifteenth street, between Gales and E street (east side) NE									663				485.93
71	Fifteenth street, between Rosedale and E street (east side) NE									78				18.71
73	D street, between Seventh and Ninth (both sides) NE	280						908						435.17
74	C street, between Eleventh and Twelfth (both sides) SE	238					520							282.88
75	I street, between Eighth and Eleventh (both sides) SE	916					1,645							744.22
76	Fourteenth street, between T and U (west side) NW					642.59					450			872.09
77	Fourteenth street, between S and T (west side) NW					91.12					81			128.85
79	Fourteenth street, between S and T (east side) NW					58.95				10	421			966.57
80	Fifteenth street, between R and S (west side) NW					213.23				274				508.02
81	Fourteenth street, between Vermont avenue and N street (east side) NW					296.30				318	32		17.70	659.47
83	Massachusetts avenue, between Sixteenth and Seventeenth streets (both sides) NW					693.86								924.05
84	Alley, square 987	508		1,075				20	12	220				1,880.70
85	Alley, square 721	305		722										1,371.24
86	Alley, square 445 (west half)	638		647										1,432.25

STATEMENT C.—*Assessment work*—Continued.

No.	Location of work.	Grading.	Vitrified block, paved.	Asphalt block, paved.	Asphalt block, repaved.	Cement sidewalk.	Brick sidewalk, paved.	Brick sidewalk, repaved.	Cobble.	Curb set.	Curb reset.	Granite block, repaved.	Cement coping.	Cost.
		Cu. yds.	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Lin. ft.*	*Lin. ft.*	*Sq. yds.*	*Lin. ft.*	
88	Alley, square 891	353	1,080											$1,585.94
89	Alley, square 1245	444	639											1,029.67
90	Alley, square 1282	196	106											207.78
91	Alley, square 1208	497	1,769											2,626.17
93	Alley, square 1277	324	472							19	50			756.19
94	Alley, square 1283	557	618											942.18
95	Alley, square 5	2,739		2,087						83				3,951.91
96	C street, between North Capitol street and New Jersey avenue (both sides) NW					588.89				33	640			864.54
97	Twelfth street, between B and D (west side) NE	60					467							331.57
98	Thirteenth street, between North Carolina avenue and D (east side) E	1,273					2,490	180						1,493.53
99	Fourteenth street, between East Capitol and E (east side) SE	2,232					1,557							1,160.66
101	Olive avenue, between Twenty-ninth and Thirtieth (north side) NW						367			271				420.04
102	Eighth street, between G and I (west side) SE					1,271.51				736				2,236.69
103	Vermont avenue, between N and Iowa Circle (west side) NW					835.22				707	80			1,640.57
104	Spruce street, between Larch and Bohrer (both sides) NW					721.45				1,151				1,983.39
108	Fourteenth street, between K and L (east side) NW					451.05				398				902.63
109	Fourteenth street, between L and M (east side) NW					485.38				569				1,088.92
111	Fifteenth street, between C and D (west side) SE	143					390							262.31
113	Yale street, between Thirteenth and Fourteenth (north side) NW					349.48								447.68
114	F street, between Nineteenth and Twenty-first (both sides) NW					923.69				1,765				2,688.79
116	Eighteenth street, between M and Jefferson (west side) NW					267.04								372.38
120	K street, between Ninth and Tenth (north side) NW					381.55					433			577.16
125	Alley, square 866	50		440				12						855.92
126	Alley, square 894	374		936										1,563.59
127	Alley, square 493	109	214							68				394.00
129	Alley, square 941	46	102											171.94
131	Fourth street, between East Capitol and Pennsylvania avenue (both sides) SE					1,983.34								2,553.27
135	New Hampshire avenue, between Corcoran and R (west side) NW					241.88								309.84
136	F street, between Eighth and Ninth (both sides) SW							282						160.39
138	Alley, block 3, West Eckington	1,869		1,373										2,623.70

139	Eleventh street, between M and Navy-Yard bridge (west side) SE					1,952.35				1,484				3,994.35
140	D street, between Seventh and Eighth (north side) NE	106						320						169.42
141	Alley, square 919			45										77.93
142	Fifteenth street, between R and S (west side) NW					35.48				67				103.50
144	Fifteenth street, between K and L, NW	637												771.56
145	Alley, square 214	47		1,143										1,658.70
146	Alley, square 178	450	1,785											2,715.26
147	Heckman street, between First and Second (north side) SE					65.67				144				218.44
148	Alley, square 937	2,000	973		20			8			40			2,046.24
149	Alley, square 736 (north half)	786	1,159											1,718.75
150	Fifteenth street, between R and S (west side) NW									19				16.20
151	Alley, square 493	113	225											391.60
162	Alley, square 1266	395	416											717.49
	Total	33,717	14,414	13,401	20	26,380.09	15,284	1,730	49	15,187.85	5,713	4	17.70	109,601.74

STATEMENT D.—*Replacing sidewalks and curb around public reservations.*

No.	Location of work.	Cement sidewalk.	Curb set.	Curb reset.	Flag relaid.	Cement coping.	Brick sidewalk laid.	Grading.	Cost.
		Sq. yds.	*Lin. feet.*	*Lin. feet.*	*Sq. yds.*	*Lin. feet.*	*Sq. yds.*	*Cu. yds.*	
1	Dupont Circle NW			570	950				$293.30
2	Farragut Square NW			240	1,552				267.30
3	Reservation bounded by Connecticut avenue, Q street, and Twentieth street NW	278.70	312			306.5			637.30
8	Reservation bounded by Connecticut avenue, M street, and Eighteenth street NW	314.28	390			267.7			782.08
15	Reservation bounded by New Hampshire avenue, Seventeenth street, and T street NW	189.77		45		157.2			209.08
16	Reservation bounded by New Hampshire avenue, Seventeenth street, and S street NW	227.27		63		243.5			333.53
19	Reservation bounded by Connecticut avenue, Eighteenth street, and N street NW						828	273	209.36
22	Delaware avenue, between G and H (east side), and Delaware avenue, between I and K (west side) SW	171.61							473.64
25	Reservation, intersection of Rhode Island avenue and M street NW	10.93							13.34
40	Reservation bounded by O street, Florida avenue, and New York avenue NE						150		80.36
43	Pump House, U street, between Sixteenth and Seventeenth NW	98.57						12	120.82
51	K street, between Ninth and Tenth (north side) NW	112.06		100					156.16
	Total	1,348.19	702	1,018	2,502	971.9	978	285	3,595.17

STATEMENT E.—*Mis*

Number.	Location.	Appropriation.	Asphalt tile, repaved, square yards.	Grading, cubic yards.	Brick sidewalk, paved, square yards.	Brick sidewalk, repaved, square yards.
4	Kentucky avenue, between East Capitol and B sts. (west side) SE.	Improvements and repairs, southeast section.	.....	74	.....	.....
5	Thirteenth street, between East Capitol and D, SE.	....do.....	.....	650	.....	.....
6	N street, between Twenty-eighth and Thirtieth NW.	Repairs to concrete pavements.	.....	.....	.....	188
7	Fifteenth and C streets SE.....	"Public schools, new 8-room building and site, eighth division, B street SE., 1896."	.....	170	280	40
9	H street, between Four-and-a-half and Sixth (south side) SW.	Repairs to concrete pavements.	.....	.....	.....	300
10	Thirteenth street, between East Capitol and D, SE.	Improvements and repairs, southeast section.	.....	108	.....	322
11	Florida avenue, between Ninth and M streets (north side) NE.	Improvements and repairs, northeast section.	.....	.....	.....	.....
13	M st., between Thirty-third and Thirty-fourth (south side) NW.	Improvements and repairs, Georgetown section.	.....	653	1,937	.....
14	W street, between Twelfth and Thirteenth (south side) NW.	Improvements and repairs, northwest section.	.....	.....	.....	175
17	Engine House No. 2, D street, between Fourteenth and Fifteenth NW.	Transfer unexpended balance, etc., to complete Engine House No. 2.	.....	45	.....	14
18	Thirty third and M streets NW...	Work on streets and avenues, Georgetown.	.....	.....	.....	.....
20	Thirty-third street, between M and Canal NW.	....do.....	.....	296	.....	.....
21	Alley, square 615 NW.....	Work on streets and avenues, northwest section.	.....	.....	.....	.....
23	Phelps place, between Le Roy place and California avenue NW.	Repairs to concrete pavements.	.....	1,150	.....	119
24	Fourth street, between East Capitol st. and Pennsylvania ave. SE.	.....do.....	.....	.....	.....	258
26	P street, between North Capitol and First NE.	Improvements and repairs, northeast section.	.....	500	.....	.....
27	From square 212 to Yale street, corner Thirteenth NW.	Assessment and permit work, county roads allotment.	.....	.....	.....	.....
28	Western Market, Twenty-first and K streets NW.	Repairs to market houses.....	.....	3	.....	.....
30	South Carolina avenue, between Seventh and Ninth street SE.	Improvements and repairs, southeast section.	.....	.....	.....	1,005
31	Northeast corner Ninth and I streets SE.	.....do.....	.....	.....	.....	135
32	B street, between Eighth and Ninth NE.	Improvements and repairs, northeast section.	.....	.....	.....	1,015
34	M street, between Second street and Florida avenue NE.	.....do.....	.....	2,067	3,260	.....
35	Florida avenue, between North Capitol and First streets NW.	Improvements and repairs, northwest section.	.....	.....	.....	165
36	Florida avenue, between P and North Capitol streets and Florida avenue between P and First streets NE.	Special appropriation for P street.	.....	650	.....	384
37	Florida avenue, between Ninth and M streets NE.	Improvements and repairs, northeast section.	.....	866	.....	2,022
38	U Street pump house NW.....	High-service distribution.....	.....	40	.....	.....
39	M st., between Thirty-third and Thirty-fourth (north side) NW.	Improvements and repairs, Georgetown.	.....	178	.....	448
42	Princeton st., between Thirteenth and Fourteenth (both sides) NW.	Yale, etc., streets.....	.....	.....	.....	.....
44	No. 12 Engine House, corner North Capitol and Quincy streets.	New engine house, etc., in vicinity of North Capitol street and Florida avenue.	.....	28	.....	.....
45	Seventh street and Florida avenue NE.	Improvements and repairs, northeast section.	.....	6	.....	.....
46	No. 13 Engine House, Seventh street extended NW.	New engine house in vicinity of Brightwood avenue.	.....	136	.....	.....
49	Western Market, Twenty-first and K streets NW.	Special repairs to market houses.	.....	4	.....	25
50	M street, between Thirty-first and Thirty-second (south side) NW.	Improvements and repairs, Georgetown.	24	.....	.....	592
	Total.....	.....	24	7,594	5,457	7,207

ellaneous work.

Cement sidewalk, square yards.	Curb set, linear feet.	Curb reset, linear feet.	Flag laid, linear feet.	Flag relaid, linear feet.	Cobble, square yards.	Curb taken up, linear feet.	Asphalt block, paved, square yards.	Vitrified block, paved, square yards.	Concrete, cubic yards.	Vitrified brick, repaved, square yards.	Macadam replaced, square yards.	Sodding, square yards.	Hauling cobble and flag, square yards.	Brick on edge, repaved, square yards.	Granite block, repaved, square yards.	Pipe laid, 12-inch, linear feet.	Cost.
.....	639	39	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	$542.11
.....	3,875	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,063.06
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	37.75
.....	143	.....	143	.....	50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	233.98
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	58.75
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	156.00
.....	.....	.....	.....	.....	.....	1,100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	18.75
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	415.59
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	28.50
.....	36	102	.....	.....	.....	.....	83	51	63	.....	.....	.....	.....	.....	.....	.....	318.56
75.87	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	93.77
.....	520	.....	.....	.....	588	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	320.28
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	148	.....	.....	.....	.....	.....	.....	62.50
.....	.....	1,035	.....	330	110	.....	.....	.....	.....	.....	350	23	.....	.....	.....	.....	738.25
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	64.50
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	55.62
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	718	.....	.....	.....	28.00
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	56	.....	.....	17.00
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	203.89
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	20.62
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	126.73
.....	.....	.....	.....	.....	47	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	821.63
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	44.37
.....	.....	.....	80	.....	26	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	199.87
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	454.82
.....	20	.....	.....	.....	.....	.....	.....	200	2	.....	.....	.....	.....	.....	.....	.....	316.94
.....	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	22	.....	108.22
.....	1,373	66	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	999.00
.....	84	.....	.....	.....	.....	.....	207	.....	.....	.....	.....	.....	.....	.....	.....	.....	447.34
.....	.....	.....	164	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....	19.12
.....	49	.....	.....	.....	.....	.....	513	.....	.....	.....	.....	.....	.....	.....	.....	72	889.42
.....	.....	.....	.....	.....	.....	.....	106	.....	.....	.....	.....	.....	.....	.....	.....	.....	175.85
.....	.....	.....	.....	85	.....	.....	23	.....	.....	.....	.....	.....	.....	.....	.....	.....	139.29
75.87	6,754	1,242	387	415	821	1,100	932	251	65	148	350	23	718	56	26	72	11,220.08

STATEMENT F.—*Whole-cost work.*

No.	Location.	For whom done.	Curb taken up.	Vitrified block, repaved.	Curb reset.	Asphalt tile, paved.	Cost.
			Lin. ft.	*Sq. yds.*	*Lin. ft.*	*Sq. yds.*	
3	Florida avenue, between North Capitol and First streets (north side) NW.	E. J. Bentley	9				$2.19
4	California avenue, between Columbia road and Phelps place NW.	Gen. D. W. Flagler, (repairing street washer).					4.79
5	Alley, square 551	Edward Kern		14			11.39
6	Fourteenth and T (southwest corner) NW.	F. B. Pyle			14	82	44.32
	Total		9	14	14	82	62.69

STATEMENT G.—*Number of square yards and cost charged for repairs to cuts made by plumbers and others in streets, avenues, and alleys during the year ended June 30, 1897.*

	Number.	Square yards.	Cost (amount charged).
Plumbers' cuts:			
Sheet asphalt	203	897.18	$2,691.54
Granite block	117	707	954.45
Asphalt block	71	224.89	303.60
Cobblestone and rubble	153	819.09	368.59
Vitrified brick and block	62	252.23	340.51
Macadam	71	440	594.00
Granolithic	31	115.55	259.99
	708	3,455.94	5,512.68
The following cuts have been repaired and charged to the various appropriations and deposits specified:			
Water department	281	3,723.47	3,298.39
Sewer department	308	17,102.76	5,282.58
Current repairs, streets, etc	127	4,548.40	2,914.61
Repairs to concrete pavements	2	2.05	2.23
Street lighting	22	67.69	94.74
Improvements and repairs, northeast section	4	4.62	10.08
Improvements and repairs, southeast section	3	1.81	3.97
Yale, etc., streets	1	30.60	30.64
Deposit Cranford Paving Co	1	3.32	2.82
Deposit Mrs. A. M. McMillan	1	12.33	7.67
Deposit Pintsch Compressing Co	1	2,590.63	2,273.39
Deposit Chesapeake and Potomac Telephone Co	1	394.37	340.55
Deposit Washington Gaslight Co	150	1,103.34	2,217.50
Deposit United States Electric Light Co	131	2,438.44	5,224.90
Deposit Potomac Electric Power Co	23	5,119.68	9,951.04
Total	1,764	40,539.45	37,147.79

NOTE.—The above amounts do not include the cost of surface repairs to sheet asphalt pavements charged against any appropriation.

The following is a comparison between the repairs made to plumbers' cuts during the year ended June 30, 1897, and the seven preceding years:

Year.	Number.	Square yards.	Cost.
1889-90	393	2,085.06	$3,712.06
1890-91	852	3,899.61	6,488.02
1891-92	980	5,220.50	6,994.58
1892-93	2,132	8,694.67	14,025.68
1893-94	1,583	9,233.25	15,272.72
1894-95	1,236	6,718.57	9,287.71
1895-96	1,305	11,941.03	14,156.18
1896-97 (includes gas, electric lighting, and deposit jobs as in former years)	1,016	15,058.07	25,530.55

REPORT OF SUPERINTENDENT OF ROADS.

WASHINGTON, *July 20, 1897.*

SIR: I have the honor to submit herewith report of operations of road department during fiscal year ended June 30, 1897.

Very respectfully,

GEO. N. BEALE,
Superintendent of Roads.

The ENGINEER COMMISSIONER, DISTRICT OF COLUMBIA,
(Through Captain Beach, U. S. A.)

Expenditures, repairing county roads and suburban streets, fiscal year 1896–97.

	Amount.
CENTRAL SECTION.	
Fourteenth street road	$1,165.46
Vine street	1.25
Binney street	25.62
Crescent street	7.50
Superior street	2.25
Quarry road	250.98
Seventh street extended	.63
Bunker Hill road	1,110.96
Brightwood avenue	2,239.79
Woodley lane	105.75
Lincoln avenue	204.31
Linean Hill road	621.24
Rock Creek Church road	336.04
Bladensburg road	1,220.13
Bennings road	1,067.59
First street extended NW	374.43
Blacksmithing	292.93
Brentwood road	229.74
Albany street	13.00
Miscellaneous labor	1,297.12
Park street	457.99
Phelps place	558.32
Howard avenue	225.53
Kenesaw avenue	629.32
Huntington place	10.00
Kramer street	21.25
Philadelphia street	31.24
Frankfort street	37.25
Fort street	24.31
Hartford street	29.50
Thirteenth street	25.62
Dover street	8.50
Capitol street	126.50
Concord street	22.74
Meridian street	35.94
Twenty-second street	13.12
Cincinnati street	15.61
Staughton street	7.86
Chestnut avenue	17.33
Providence street	75.25
Indianapolis street	23.25
Carroll avenue	42.05
Tenth street	44.25
Sherman avenue	173.98
Whitney street	277.33
Fourth street	185.37
Rosemont avenue	241.88
Richmond street	12.38
University place	13.00
Columbia road	370.68
Duncan street	23.44
Material, general use	1,161.66
Detroit street	18.77
Twenty-fourth street	7.25
Emporia street	14.00
Thirteenth street road	348.47
Klingle road	115.31
Howard street	64.05
Center street	27.00
Ontario avenue	9.75
Michigan avenue	542.49
Kalorama avenue	2.75
California avenue	13.99
Piney Branch road	128.93
Third street	34.68
Irvin street	4.63
CENTRAL SECTION—continued.	
Connecticut avenue extended	$215.11
Seventeenth street extended	110.74
R street extended	29.67
Massachusetts avenue extended	1.87
Magnolia avenue	4.75
Roanoke street	69.99
Quincy street	11.50
Twelfth street extended	233.93
Wallace street	119.95
Gales street	4.88
Elm street	60.73
Randolph street	9.75
Harewood avenue	2.12
Seaton street	23.25
Central avenue	26.00
Kendall street	7.12
Lancing street	58.98
Bates road	5.75
Blair road	15.62
Brown street	68.12
Fifth Street road	25.46
Eslin street	24.37
Fifth street	278.88
Fifteenth Street road	84.25
Grant street	5.12
Harewood road	553.74
Lamar street	4.00
Lydecker avenue	28.49
Morgan avenue	22.50
Montello subdivision	58.72
Mount Olivet road	2.75
Oak street	29.67
Pomeroy street	77.25
Princeton street	47.80
Queens Chapel road	176.66
Riggs road	31.44
Eleventh street	1.38
Rock Creek Ford road	46.00
Sargent road	25.78
Sheridan street	20.87
Shepherd road	728.99
Sixteenth Street road	526.88
Sixth street	9.75
Spring street	180.25
Sumner street	38.25
Flint street	64.55
Kenyon street	7.30
Erie street	12.00
Rosedale street	8.50
Lanier Terrace	2.75
Total	21,045.42
WESTERN SECTION.	
Argyle Mill road	167.48
Military road	293.78
Brookville road	93.99
Little Falls road	78.12
Chapel road	123.58
Daniels road	176.19
Chain Bridge road	48.75
Falls road	189.17
Klingle road	45.50
Loughboro road	44.25
Murdock Mill road	103.25

Expenditures, repairing county roads and suburban streets, etc.—Continued.

	Amount.
WESTERN SECTION—continued.	
Red lane road	$34.50
River road	57.38
Arthur street	48.02
Blacksmithing	60.60
Ridge road	267.96
Thirty-seventh street extended	355.54
Howard street	14.00
Pierpoint place	28.00
Milwaukee street	36.75
Thirty-fifth street (Oak View)	14.00
Thirty-fourth street	24.50
Thirty-sixth street	28.00
Miscellaneous labor	1,119.53
Connecticut avenue extended	285.20
Hartford street	2.50
Grant road	191.97
Broad Branch road	338.28
Ninth street	32.76
Canal road	2,706.38
Des Moines street	33.69
Woodley lane	495.81
New-cut road	748.43
Tunlaw road	346.96
Tenleytown road	1,285.94
Forty-first street	62.50
Cathedral avenue	19.50
Pierce Mill road	237.61
Material, general use	20.34
Total	10,262.69
EASTERN SECTION.	
Adams street	13.84
Central avenue	65.18
Fillmore street	31.75
Giesboro road	37.25
Hamilton road	135.87
Jackson street	334.30
Jefferson street	44.46
Monroe street	2.50
Morris road	225.49
Naylor road	66.12
Pierce street	35.99
EASTERN SECTION—continued.	
Sheridan street	$123.25
Stanton avenue	82.37
Stephens avenue	13.75
Suit road	178.74
T street	35.86
Washington street	20.70
Wheeler road	4.25
Walker road	61.36
Bowen street	148.12
Howard street	80.06
Fort Stanton road	7.00
Taylor street	16.50
Spring street	29.13
Chestnut street	14.38
High street	12.91
Madison street	40.00
Minnesota avenue	35.75
Nichols avenue	1,382.39
Benning road	200.78
Franklin street	14.75
Prout street	62.49
Harrison	326.20
Livingston road	472.17
Anacostia road	231.83
Blacksmithing	67.30
Miscellaneous labor	530.29
Good Hope road	142.75
Bowen road	108.49
Branch avenue	354.60
Bliss avenue	54.50
Maple avenue	52.15
Pennsylvania avenue extended	87.25
Twenty-eighth street (Bliss subdivision)	6.75
Congress Heights subdivision	120.75
Summit avenue	4.44
Poplar avenue	14.13
Total	6,130.89
Steam roller	2,000.00
Sprinkling various sections	544.24
	2,544.24

SUMMARY.

Central section	$21,045.42
Western section	10,262.69
Eastern section	6,130.89
Steam roller and sprinkling	2,544.24
Total	39,983.24
Expended from appropriation, "Sprinkling streets, etc., 1898," in addition to amount expended from appropriation "Repairs of roads," as above	878.60

Expenditures, assessment and permit work, 1897.

UNDER ASSESSMENT SYSTEM.

Location.	Brick sidewalk.	Curb set.	Cost.
	Sq. yards.	*Lin. feet.*	
Columbia road, between Quarry road and Eighteenth street.	1,823	.....	$353.43
Princeton street, between Thirteenth and Sherman avenue	.....	1,452.70	1,237.12
Yale street, between Thirteenth and Sherman avenue	.....	1,468.51	1,149.88
Connecticut avenue, between Rock Creek and Zoo	2,100	2,081.70	2,930.87
Roanoke street, between Thirteenth street and east line Columbia Heights	.....	1,484.34	1,209.46
Columbia street, between Thirteenth and Fourteenth streets.	492	.....	268.20

Expenditures, assessment and permit work, 1897—Continued.

REGULAR PERMIT WORK.

Location.	Brick sidewalk.	Curb set.	Cost.
	Sq. yards.	*Lin. feet.*	
Columbia street, between Thirteenth and Fourteenth streets NW	530½		$296.44
Emporia street, between Twenty-second and Twenty-fourth streets NE	100		43.30
Kenesaw avenue, between Twelfth and Thirteenth streets NW	13		9.76
Harvard street, between Thirteenth and Fourteenth streets NW	110		89.38
Thomas street, between Le Droit avenue and property line	290		290.41
T street, between Lincoln avenue and First street NW	809½		273.08
University place, between Welling and Euclid	295	384.60	434.66
Miscellaneous, office expenses, engineering, etc			509.56
Total			9,094.57

Employees, road and bridge departments (per diem), fiscal year 1896–97

Class.	No.	Constructing county roads.	Current repairs, county roads.	Assessment and permit work.	Construction and repair of bridges.	Ordinary care of bridges.	Florida avenue.	Current repairs, streets, avenues, and alleys.	Sewers.
Foremen	7	$2,036.10	$3,103.00	$183.00			$24.50	$47.25	$12.50
Assistant engineers	3	2,131.21		245.25	$146.79	$525.00			
Other employees	460	15,031.48	17,926.91	1,410.53	2,612.97	2,717.78	130.00	176.73	125.30

Under appropriation for "Current repairs, county roads, etc., 1897," the principal roads and streets repaired were as follows: On Fourteenth street road, graveling and general repairs; Bunker Hill road, graveling and general repairs; Bladensburg road, graveling and general repairs; Bennings road, graveling; Linnean Hill road, graveling; Park street, graveling; Phelps place, grading; Kenesaw avenue, graveling; Michigan avenue, grading; Harewood road, graveling; Shepherd road, graveling; Sixteenth street extended NW., graveling; Canal road, macadamizing and graveling; Tenleytown road, graveling and general repairs; Nichols avenue, graveling and general repairs; Livingston road, graveling and general repairs.

On other roads and streets repairs were of a minor nature, such as are required from time to time.

Attention is respectfully called to the fact that the present appropriation of $40,000 is not adequate to keep existing roads in repair. The amount named during the fiscal year was reduced by an expenditure of $2,000 for purchase of steam roller and $544.24 for sprinkling.

To properly maintain roads and suburban streets would require at least $75,000, and an appropriation of $5,000 is needed for sprinkling main thoroughfares.

REPORT OF THE ENGINEER OF BRIDGES.

WASHINGTON, *July 20, 1897.*

CAPTAIN: I have the honor to submit the following report for the fiscal year ended June 30, 1897:

ORDINARY CARE OF BRIDGES.

Keepers were stationed at the Aqueduct Bridge, over the Potomac, and the Pennsylvania Avenue and Navy-Yard bridges, over the Eastern Branch. At the last-named structure the operation of the draw requires a keeper, and at the other two the demands of the public convenience justify their retention. These men are special police officers, and, in addition to caring for the cleanliness and safety of the structures, they enforce public order and have frequently made arrests and secured convictions in cases of violation of law.

The bridge inspector maintained under the appropriation has made careful inspection of all District bridges and culverts, and no accidents to persons or property have occurred on such structures, so far as known.

The appropriation barely suffices for the pay of these employees.

STATEMENT OF APPROPRIATION.

Amount of appropriation	$3,500.00
Amount of expenditures	3,449.63
Balance	50.37

CONSTRUCTION AND REPAIR OF BRIDGES.

The amount of this appropriation is so small in proportion to the work to be done that only repair work could be undertaken. Toward the end of the year the repayment of nearly $1,000 by street railway companies enabled the construction of a much-needed culvert at Illinois avenue and Piney Branch, the only construction item in the year's work.

The details of expenditure are given in the statement of work done, transmitted herewith, showing an unexpended balance of $4.48.

An increase in the appropriation for bridges is recommended. There was never before so large an extent of bridge superstructure to be cared for, and yet the appropriations have lately been below the average of former years. For the fiscal years 1887 to 1894 the appropriations averaged 7½ cents per square foot of bridge floor to be maintained. Since then they have averaged 3¼ cents, a difference of over one-half.

The structures have suffered in consequence, have deteriorated, and no construction work can be undertaken except under conditions that make it compulsory.

The bridge floors of the larger bridges are very expensive to renew, and, from lack of funds, it has unfortunately become the fact that permission has had frequently to be refused to permit the passage of heavy loads which the bridges themselves could easily carry, but which would break through the deteriorated and weakened floors. This is not just to the citizens or to the District, which loses the full value of the investment represented by the cost of the bridges.

The consolidation of the appropriations for "Ordinary care of bridges" and for "Construction and repair of bridges" into a single one for "Bridges" has been constantly recommended for several years, and the recommendation is here renewed. It is done in the interest of simplicity of accounts and of work. No additional cost would result, since each appropriation is regularly expended to its full amount. The amount of such consolidated appropriation for bridges should be $25,000, the sum formerly given for such work when there was much less of it to do.

Washington bridges are not of an equal class with other of her public works, as a result of an economy at their expense, which ought not, in justice, to be further continued.

For individual structures the following is recommended:

That K Street Bridge, over Rock Creek, be reconstructed, at an estimated cost of $20,000.

That the Navy-Yard Bridge, over the Eastern Branch, be reconstructed, at an estimated cost of $250,000.

That M Street Bridge, over Rock Creek, be reconstructed, with a paved floor system, at an estimated cost of $30,000.

Provision was made in the appropriation bill for the fiscal year 1898 for widening the approaches and superstructure of the P Street Bridge, over Rock Creek, and for the securing of competitive designs for a new structure on the line of Connecticut avenue extended.

Provision was also made in the same act for a survey and design for a new bridge crossing Rock Creek on the line of Massachusetts avenue, the work to be done under the direction of the Secretary of War.

The recommendation made in previous reports of a bridge on this line is not herein renewed, in expectation that suitable action will result from the provision above stated.

Respectfully submitted.

GEO. H. BAILEY,
Engineer of Bridges.

The ENGINEER COMMISSIONER, DISTRICT OF COLUMBIA.
(Through the Computing Engineer.)

Expenditures, construction and repair of bridges.

Order.	Bridge.	Amount.	Remarks.
241	49	$353.51	Repairing floor, etc..
242	35	34.05	Repairing floor, sidewalk, and rail.
243	55	2,999.07	New lumber for reflooring.
244	55	211.80	Repairing floor and sidewalk.
245	13	16.25	Repairing floor.
247	54	9.63	Do.
248	34	15.49	Repairing floor and railing.
251	36	9.49	Repairing floor and adjusting bridge.
252	7	40.61	Repairing floor and cementing bottom posts.
253	52	150.80	Repairing rail, painting, etc.
255	54	4,373.09	Relaying floor and sidewalk.
256	57	67.62	Putting in pipe culvert.
257	72	59.06	Do.
258	73	45.46	Do.
259	68	36.72	Do.
261	31	80.79	Repairing floor and fence on approaches.
262	27	13.60	Repairing floor and concreting posts.
263	25	2.19	Repairing floor.
265	13	318.81	Rebuilding bridge.
266	26	20.77	Repairing floor.
268	18	1.38	Do.
269	30	38.59	Repairing floor and sidewalk.
271	40	4.53	Repairing railing.
273	75	1.00	Cleaning culvert.
274	Culvert	3.13	Repairing culvert on Military road.
275	70	14.63	Repairing pipe culvert.
276	71	14.62	Do.
277	51	8.00	Laying new floor.
278	64	27.97	Putting in new joists.
279	48	7.88	Repairing.
280	Culvert	5.50	Brightwood avenue, cleaning obstructions.
281	44	1.37	Repairing floor.
282	Culvert	7.50	Branch avenue, cleaning obstructions.
283	39	9.87	Repairing.
286	3	2.25	Repairing floor.
287	Culvert	450.51	Illinois avenue, grading for culvert.
Contract	do	1,063.84	Illinois avenue, constructing stone culvert.
290	do	36.30	Repairing head wall.
291	28	5.75	Repairing floor.
292	Culvert	26.81	Canal road, removing obstructions.
293	do	11.55	Fourteenth street road, repairing head wall.
294	do	1.25	Grant road, repairing head wall.
295	do	1.25	Chappel road, repairing head wall.
296	do	7.36	Brentwood road, repairing head wall.
Labor	Various	32.16	Miscellaneous.
Tools	do	49.75	For general use.
Salaries	do	223.29	Engineer, clerk, etc.
Material	do	82.54	For general use.
Total		10,934.39	
Credit:			
Repayment by Capital Traction Co., bridge No. 30.		931.06	
Repayment by Metropolitan R. R. Co., bridge No. 34.		7.81	
		938.87	
		9,995.52	

Amount of appropriation	$10,000.00
Net expenditures	9,995.52
Balance	4.48

REPORT OF THE SUPERINTENDENT OF SEWERS.

WASHINGTON, *August 3, 1897.*

SIR: I have the honor to submit the following report of the operations of the sewer division for the fiscal year 1896–97.

Under the appropriation for cleaning and repairing sewers and basins work was performed as follows: 123,049 linear feet of pipe sewers, 10,193 linear feet of brick sewers, 4,430 manholes, and 81,002 receiving basins were cleaned, from which were removed 6,859 cubic yards (estimated) of street detritus and sludge; 1,633 linear feet of pipe sewers were taken up and relaid; 591 linear feet of brick sewers were repaired; 699 minor repairs to sewers were made; 8 manholes were constructed; 145 manholes were repaired; 90 manholes were reconstructed; 74 new manhole covers were placed in position in lieu of old defective covers; 3 receiving basins were constructed; 263 receiving basins were repaired; 38 new tops were placed on street receiving basins; 70 new grates and frames were placed on alley and gutter basins; 23 receiving basins were reconstructed, and 9 receiving basins were abandoned.

Under contract 92.8 feet of the bottom of Slash Run sewer was reconstructed at a cost of $815.15.

The flushing gates at the outlet end of the Tiber sewer were advantageously operated throughout the year.

The tidal sewers and sediment chambers were cleaned with regularity. One flushing gang was employed throughout the year.

Work was begun on the reconstruction of the main sewer in Sixth street SE., between K and N streets. The amount expended in cleaning basins was $12,450.09.

Under the appropriation for replacing obstructed sewers there were constructed under contract 1,188 linear feet of 12-inch sewer and by day labor 9,703 linear feet of pipe sewers varying from 8 inches to 24 inches in diameter; 1,212 linear feet of 6-inch lateral connections and 61 manholes. The use of 4-inch iron pipe in short sections connected with a force pump, for the purpose of conveying sewage during the progress of the work of replacing sewers, is an improvement upon previous practice and gave good results.

Under the appropriation for permit work there was constructed by day labor 4,194 linear feet of pipe sewers, varying from 6 inches to 18 inches in diameter, and 16 manholes, divided among 31 jobs, averaging in cost per job $187.53, in length of sewer per job 135.3 linear feet, and in cost per linear foot $1.386.

Under the assessment system there was constructed by day labor 30,597 linear feet of pipe sewers, varying in diameter from 8 inches to 21 inches, 194 manholes, and 2 receiving basins, divided among 133 jobs, averaging in cost per job $322.84, in length of sewer per job 230.1 linear feet, and in cost per linear foot $1.403. Under contract there was constructed 1,070 linear feet of 12-inch sewer and 7 manholes.

I again invite attention to the assessments made of sewers constructed under the assessment system. According to present practice, the amount charged against abutting property is in direct proportion to the linear frontage of the sewer on the abutting property. In view of the fact that practically equal benefit is conferred by a small or large frontage, this rule is not equitable. I suggest that the law should be changed in such manner that the amount assessed may be divided among the abutting lots in proportion to their superficial extent.

Sewers were constructed at applicants' cost, aggregating 495 linear feet, varying from 8 inches to 21 inches in diameter, and 5 manholes, divided among 15 jobs and averaging in cost per job $51.43.

Under the appropriation for main and pipe sewers, main sewers were constructed in the following-named localities: I street SW., from Canal to Third streets; Third street SW., from E to I streets; Fifteenth street NE., from A to C streets; B street NE., from Fifteenth street to North Carolina avenue; North Carolina avenue, between B and Fourteenth streets; Georgia avenue SE., from Sixteenth to Seventeenth streets; Seventeenth street SE., from Georgia avenue to E street. There was also constructed 3,336.94 linear feet of pipe sewers, varying from 15 inches to 24 inches in diameter. By day labor there was constructed 14,845 linear feet of pipe sewers varying from 8 inches to 24 inches in diameter, 103 manholes, and 68 receiving basins.

Under the appropriation for suburban sewers, main sewers were constructed in the following-named localities: Fourteenth street NW., from Center to Park streets; Fifth street NW., from Newark to Omaha streets; Flagler place, from W street to the reservoir, and the sewer in Fifteenth street extended, from Kenesaw to Grant avenues, were completed. There was also constructed 7,010.69 linear feet of pipe

sewers varying from 12 inches to 24 inches in diameter. By day labor there was constructed 6,308 linear feet of pipe sewers varying from 10 inches to 24 inches in diameter and 126.2 linear feet of 2.25-foot by 3.375-foot brick sewer and 27 manholes. Work was commenced, under contracts, upon the trunk sewer in the valley of Piney Branch, rights of way for the same having been secured without cost to the District.

Under the appropriation for automatic siphons, 8 flushing basins were constructed.

The following work was performed and charged to the appropriations for Brookland, Kenesaw avenue, suburban, Fifteenth and F streets portions of Easbys Point intercepting sewer, Rock and B street intercepting sewer, cleaning and repairing sewers and basins, improvements and repairs various sections, repair of county roads, and repairs to concrete pavements: Two thousand one hundred and fifty-two linear feet of pipe sewers varying in size from 8 inches to 24 inches in diameter, 70 linear feet of 2.5-foot by 3.75-foot brick sewer, 84.2 linear feet of 2.75-foot by 4.125-foot brick sewer, 10 manholes, and 24 receiving basins were constructed. Eleven receiving basins were reconstructed. There was also expended from the appropriation for the preservation of public order the sum of $211.89 for labor and $396.79 for materials used in erecting rope lines along Pennsylvania avenue March 4, 1897.

The Brookland trunk sewer was completed. Total length of brick sewer constructed, 8,223.9 linear feet, which includes 28 linear feet of bell section, and 16 linear feet of transition section. There was also constructed under the same contract 356 linear feet of 24-inch sewer.

Of the Rock Creek and B street intercepting sewer 5,558 linear feet of brick sewer, 293.2 linear feet of 18-inch, and 931.1 linear feet of 15-inch terra cotta pipe sewers, and 39.4 linear feet of circular brick sewer 30 inches in diameter; 704.2 linear feet of 24-inch and 150 linear feet of 30-inch cast-iron pipe and one wrought-iron truss bridge were constructed. Work is in progress on this sewer.

Of the Fifteenth and F streets portions of the Easbys Point intercepting sewer 2,576.4 linear feet of brick sewer were completed, which includes 48 linear feet of bell section and 152 linear feet of brick sewer connections. Work is in progress on this sewer.

There were received 1,545 communications, and actions were taken on 1,259 papers. In addition 1,258 complaints were received and acted on.

Tables numbered from 1 to 12 are transmitted herewith.

Table No. 1 shows contract work under appropriations for replacing obstructed sewers, main and pipe sewers, suburban sewers, and Fifteenth and F streets portions of Easbys Point intercepting sewer.

Table No. 2 shows work done by day labor under the permit system.

Table No. 3 shows work done by day labor under the the assessment system.

Table No. 4 shows work done at whole cost to applicant.

Table No. 5 shows work done by day labor under the appropriation for replacing obstructed sewers.

Table No. 6 shows work done by day labor under the appropriation for main and pipe sewers.

Table No. 7 shows work done by day labor under the appropriation for suburban sewers.

Table No. 8 shows work done under appropriation for flushing basins.

Table No. 9 shows work done by day labor under miscellaneous appropriations.

Table No. 10 shows work done under various contracts for sewers.

Table No. 11 shows number of inspectors, overseers, and other employees of the sewer and property divisions, and engineers' stables temporarily required, and appropriations from which paid.

Table No. 12 shows average cost per linear foot of sewers constructed by day labor.

Respectfully submitted.

D. E. McComb,
Superintendent of Sewers.

Capt. W. M. Black,
Corps of Engineers, U. S. A., Engineer Commissioner District of Columbia.

TABLE 1.—*Statement of sewers constructed under contracts chargeable to sewer appropriations for the fiscal year 1897.*

REPLACING OBSTRUCTED SEWERS.

No. of contract.	Contractor.	Location.	Size of sewer.	Length.	Contract price [per foot].	Allowance to contractor.	Materials furnished.		Cost of inspection.	Cost of repairs to pavements.	Total cost.
							Chargeable.	Not chargeable.			
2394	E. G. Gummel	P street, between Thirty-first and Valley streets NW.	12-inch	*Feet.* 1,138.05	$0.92	$906.97	$140.00	$160.12	$36.00	.....	$1,245.09

MAIN AND PIPE SEWERS.

2323	E. G. Gummel	A street, between Fourteenth street and Massachusetts avenue SE.	21-inch	526.04	$1.37	$660.47	$91.00	$195.89	$28.00	.....	$975.36
		B street, between Thirteenth and Fourteenth streets SE.	.....do	498	1.34	662.42	77.00	184.34	16.00	.....	939.76
		Ninth street, between Virginia avenue and M street SE.	.....do	432.05	1.23	524.87	72.00	153.07	20.00	$10.80	780.74
2360	Jas. McCandlish	Canal street, between N street and Anacostia River.	24-inch	634.15	1.35	787.66	123.67	312.35	60.00	10.84	1,294.52
2361	R. M. Moore & Co.	I street, between First street and Delaware avenue SW.	5 feet 3 inches diameter.	219.17							
		I street, between Delaware avenue and Second street SW	4 feet 9 inches diameter.	200.97							
		I street, between Second and Third streets SW.	4 feet 6 inches diameter.	489							
		Third street, between I and G streets SW.	3 by 4.50 feet	660.28	.....	10,934.06	4,219.30	64.40	767.00	383.34	a16,368.10
		Third street, between G and F streets SW.	3.25 by 4.375 feet.	311.58							
		Third street, between F and E streets SW.	3 by 4.50 feet	345.72							
		E street, between Third and Four-and-a-half streets SW.	2.75 by 4.125 feet.	574.9							
		Third street, crossing E street SW	24-inch	33							
		Four-and-a-half street, crossing E street SW.	21-inch	12							
2367	Guiney & Coyle	Third street, between F and G streets NE.	24-inch	572.5	1.74	997.50	116.33	293.31	52.00	102.52	1,501.66
2394	E. G. Gummel	S street, between Florida and and Connecticut avenues NW.	21-inch	123.6	1.57	186.68	31.00	47.92	7.00	.....	272.60
		Eighth street, between B and C streets SE.	15-inch	505.6	.96	496.90	75.00	105.51	48.00	.....	725.41

2326	E. G. Gummel.....	Princeton street, between Sherman avenue and Thirteenth street.	24-inch	884.13	$1.52	$1,219.96	$138.00	$414.51	$42.00	.....	$1,814.47
		Fourteenth Street road, between Center and Park streets.	2.50 by 3.75 feet...	498.5	4.85	7,236.36	2,617.57	36.08	182.00	$114.78	10,186.79
			2.25 by 3.375 feet..	243.7	1.22						
			2 by 3 feet.....	341.65	4.02						
2324	Thos. Buckley.....	Fifth street, between Newark and Omaha streets.	2 by 3 feet.....	393.16	4.91	1,526.76	524.26	11.08	200.00	.....	2,562,10
2325	Jno. J. Shipman.....	Flagler place, between V street and outlet of reservoir sewer.	6.55 feet diameter	1,193.3	.....	7,401.42	2,790.72	29.85	256.00	538.29	b11,016.28
2368	Adam McCandlish..	Whitney avenue, between Fourteenth street and Holmead avenue.	24-inch	12	1.75	647.32	88.60	232.33	60.00	.....	1,028.25
			21-inch	591.7	1.15						
2387	Adam McCandlish..	Alley between Richmond and Savannah streets and Minnesota and Brightwood avenues, and on Brightwood avenue, between Quincy and Savannah streets, and on Quincy street, between Brightwood avenue and Eighth street.	18-inch	2,536	1.27	3,057.00	.....	.....	272.00	.....	(c)
2394	E. G. Gummel.....	Woodley road, between Connecticut and Belmont avenues.	24-inch	217	1.41	1,223.82	184.91	383.24	45.00	.....	1,836.97
		Connecticut avenue, between Woodley road and Kalorama avenue.	21-inch	763.36	1.32						
		Twentieth street, between Woodley road and Kalorama avenue.	12-inch	205.05	.80	156.40	25.00	30.88	8.00	.....	220.28
2390	R. M. Moore & Co....	Illinois avenue, between Brandywine and Flint streets.	12-inch	1,850	.....	1,836.50	.....	.....	180.00	.....	(c)

FIFTEENTH AND F STREETS PORTION OF EASBYS POINT INTERCEPTING SEWER.

2328	Lyons Bros.....	Fifteenth street, between Pennsylvania avenue and F street, and F street, between Seventh and Fifteenth streets.	6 feet 6 inches diameter.	743.4	.....	$40,992.88	.....	.....	$1,451.11	.....	(c)
			6 feet 3 inches diameter.	1,064.9							
			6 feet diameter..	268.1							
			4 feet 6 inches diameter.	300							
			Bell section.....	48							
			2 feet 6 inches connection.	40							
			3 feet connection	64							
			3 feet 6 inches connection.	48							

a Includes $2.12 cost of repairing water-service pipe, $3.46 cost of repairs to pavements over water service, $10.77 cost of repaving outside line of trench crossing H street on Third street, and resetting curb, and $4 cost of moving lamp.

b Cost of lowering 12-inch water main, $149.19, and cost of changing spring main, $389.10.

c Payment on account; work incomplete.

Statement of sewers laid under the appropriation for assessment and

TABLE 2.—PER

No. of order.	Location.	Pipe sewers laid (length in feet)							Manholes.	Basins.	Branches.
		6-inch.	8-inch.	10-inch.	12-inch.	15-inch.	18-inch.	21-inch.			
44	M street, between Fifth and Sixth streets SE.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	Roanoke street, between Thirteenth and Fourteenth streets NW.	.....	.....	2	.....	.....	.....	.....	.....	.....	1
2	New Hampshire avenue, between S street and Oregon avenue.	.....	.....	.....	20	.....	.....	.....	.....	.....	1
3	First street, between O and P streets SW.	.....	.....	.....	73	.....	.....	.....	.....	.....	2
4	Ward Place	.....	46	.....	.....	.....	.....	.....	.....	.....	5
5	Square 185	.....	.....	157	.....	.....	.....	.....	1	.....	5
6	Square 859	.....	.....	56	.....	.....	.....	.....	.....	.....	4
7	O street, between North Capitol and First streets NE.	.....	.....	.....	.....	40	.....	.....	.....	.....	2
8	Square 316	.....	60	.....	.....	.....	.....	.....	.....	.....	3
9	Twenty-second street, between P and Q streets NW.	.....	28	.....	.....	.....	.....	.....	.....	.....	2
10	Block 4, Ingleside Terrace	9	.....	.....	.....	.....	225	.....	1	.....	.....
11	Nineteenth street, between Howard avenue and Piney Branch.	.....	.....	.....	.....	177	.....	.....	1	.....	.....
12	Howard avenue, between Eighteenth and Nineteenth streets NW.	.....	.....	.....	483	.....	.....	.....	1	.....	1
13	Square 736	.....	.....	.....	417	96	.....	.....	3	.....	.....
14	.....do	.....	129	.....	.....	.....	.....	.....	2	.....	9
15	Fourteenth street, between K and L streets NW.	.....	.....	.....	251	.....	.....	.....	1	.....	4
16	Square 520	.....	.....	100	.....	.....	.....	.....	.....	.....	11
17	Square 79	.....	.....	11	.....	.....	.....	.....	.....	.....	1
18	Potomac street, between N and O streets.	.....	.....	132	.....	.....	.....	.....	2	.....	3
19	H street, between Eighth and Ninth streets NE.	.....	.....	.....	17	.....	.....	.....	.....	.....	1
20	Bunker Hill road for Catholic University.	.....	.....	.....	751	.....	.....	.....	2	.....	2
21	Potomac street, between N and O streets NW.	.....	.....	32	.....	.....	.....	.....	.....	.....	1
22	Madison street, between Thirty-fifth and Thirty-sixth streets NW.	.....	.....	126	.....	.....	.....	.....	.....	.....	3
23	G street, between Sixth and Seventh streets NE.	.....	.....	45	.....	.....	.....	.....	.....	.....	3
24	Twelfth street, between Hartford and Lansing streets.	.....	.....	208	.....	.....	.....	.....	1	.....	5
25	Massachusetts avenue and Sheridan Circle, between Twenty-second and Twenty-third streets.	.....	.....	.....	143	.....	.....	.....	1	.....	1
26	Twelfth street, between G and H streets NE.	.....	.....	20	.....	.....	.....	.....	.....	.....	1
27	North Capitol, between Pierce and M streets.	.....	.....	134	.....	.....	.....	.....	.....	.....	4
28	R street, between Florida avenue and Twenty-second street NW.	.....	.....	89	.....	.....	.....	.....	.....	.....	1
29	Square 617	.....	.....	.....	38	.....	.....	.....	.....	.....	1
30	Fifteenth street, between Rosedale and Gales streets NE.	.....	.....	.....	68	.....	.....	.....	.....	.....	1
31	Seventeenth street, from Corcoran north.	.....	11	.....	.....	.....	.....	.....	.....	.....	1
	Total	9	274	1,112	2,261	313	225	.....	16	.....	79

a Cost of repairs to pavement in addition to cost of work reported in fiscal year, 1896.
b Balance carried forward as deposit for jobs 11 and 12.

permit work and the whole cost to applicant for the fiscal year 1897.

MIT SYSTEM.

Amount of deposit.	Cost to District of Columbia.	Cost to property owner.	Total cost.	Amount returned.	For whom done.	Overseer.	Date of completion.
.....	$4.44	$4.43	$8.87	a $16.20	E. A. Atchison	Ward	Sept. 10, 1896
$7.50	3.86	3.86	7.72	3.64	Kennedy & Davis	Prince	July 10, 1896
22.00	12.44	12.44	24.88	9.56	N. T. Haller	Lanigan	July 11, 1896
56.00	38 75	38.75	77.50	17.25	Fred Deitz	Prince	July 17, 1896
43.00	27.26	27.26	54.52	15.74	Jas. H. Grant	do	Sept. 15, 1896
155 00	144.99	144.99	289.98	10.01	Hon. S. B. Elkins	Thomas	Sept. 25, 1896
36.00	21.37	21.37	42.74	14.63	D. B. Gottwals	Ward	Sept. 10, 1896
40 00	25.94	25.94	51.88	14.06	Michael Esch	do	Sept. 15, 1896
34.50	32.46	32.46	64.92	2.04	D. S. Williamson	do	Oct. 2, 1896
25.00	14.80	14.80	29.60	10.20	J. H. Merriwether	Prince	Oct. 7, 1896
821.50	199.74	199.74	399.48	(b)	Chapin Brown	do	Oct. 14, 1896
.....	119.38	119.38	238.76	.....	do	do	Oct. 16, 1896
.....	239.83	239.83	479.66	262.55	do	do	Oct. 22, 1896
514.70	434.90	434.89	869.79	79.81	Jas. Robbins	Ward	Oct. 31, 1896
86.80	67.87	67.87	135.74	18.93	W. H. Yost	do	Nov. 2, 1896
311.00	311.00	311.00	622.00	.....	Dr. F. A. Gardner	Lanigan	Jan. 13, 1897
70.00	51.90	51.90	103.80	18.10	Mrs. Annie B. Gaegler	Ward	Nov. 4, 1896
10.50	7.43	7.44	14.87	3.06	Jno. Bender	Lanigan	Nov. 9, 1896
140.00	89.42	89.41	178.83	50.59	Jas. S. Hays	Ward	Mar. 13, 1897
15.00	13.20	13.20	26.40	1.80	L. Mackall & Bro	Prince	Nov. 25, 1896
597.50	469.32	469.31	938.63	128.19	Rev. P. J. Garrigan	Lanigan	Jan. 21, 1897
25.00	17.99	17.99	35.98	7.01	J. G. Waters	Ward	Mar. 15, 1897
98.00	91.42	91.42	182.84	6.58	Bates Warren	do	Feb. 11, 1897
35.50	35.45	35.44	70.89	.06	A. Goenner	do	Mar. 17, 1897
173.50	134.17	134.17	268.34	39.33	Dr. Henry Hyvernat	Lanigan	Mar. 22, 1897
130.00	112.59	112.59	225.18	17.41	Mary E. Driggs	Ward	Apr. 6, 1897
16.50	14.56	14.57	29.13	1.93	Babbitt & Cowsill	do	May 3, 1897
94.50	70.09	70.09	140.18	24.41	Henry F. Getz	Prince	Do.
62.00	39.34	39.34	78.68	22.66	Wm. H. De Lacy	Ward	Apr. 15, 1897
30.00	19.49	19.50	38.99	10.50	S. Carr	Prince	Apr. 19, 1897
50.00	35.52	35.52	71.04	14.48	R. H. Lamb	Condon	June 22, 1897
8.00	5.90	5.91	11.81	(c)	J. R. Marshall	Thomas	.....
3,709.00	2,906.82	2,906.81	5,813.63	820.73			

c Awaiting bill for repairs to pavements.

Statement of sewers laid under the appropriation for assessment and permit

TABLE 3.—ASSESS

No. of order.	Location.	Pipe sewers laid (length in feet).						
		6-inch.	8-inch.	10-inch.	12-inch.	15-inch.	18-inch.	21-inch.
84	H street, between Connecticut avenue and Seventeenth street NW.	.....	.....	.....	.....	.....	.....	.....
90	Le Roy place, between Columbia road and Phelps place.	.....	.....	.....	.....	.....	.....	.....
94	New Hampshire avenue, between M and N streets NW.	.....	.....	.....	.....	.....	.....	.....
104	N street, between Twenty-first and Twenty-second streets NW	.....	.....	.....	.....	.....	.....	.....
108	Florida avenue, between Quincey and North Capitol streets NW.	.....	.....	.....	.....	.....	.....	.....
110	Florida avenue, between Q and North Capitol streets NW.	.....	.....	.....	.....	.....	.....	.....
1	Florida avenue, between Seventh and M streets NE.	.....	.....	.....	60	.....	.....	.....
2	Florida avenue, between Seventh and Eighth streets NE.	.....	.....	.....	267	.....	.....	.....
3	Florida avenue, between Eighth and Ninth streets NE.	.....	.....	.....	261	.....	.....	.....
4	Square 1208	.....	.....	202	47	.....	.....	.....
5	M street, between Third street and Delaware avenue NE.	.....	.....	.....	216	.....	.....	.....
6	Omaha street, between Fifth and Seventh streets NW.	.....	.....	.....	273	306	.....	.....
7	Florida avenue, between Q and First streets NW.	.....	.....	.....	393	.....	.....	.....
8	Newark street, between Fifth and Seventh streets NW.	.....	.....	.....	.....	333	.....	.....
9	Square 775	.....	.....	.....	282	.....	.....	.....
10	Florida avenue, between Quincey and First streets NW.	.....	.....	130	.....	.....	.....	.....
11	N street, between Ninth and Tenth streets NW.	.....	.....	.....	.....	.....	.....	.....
12	North Carolina avenue, between Thirteenth and Fourteenth streets NE.	.....	.....	211	244	166	.....	.....
13	Gales street, between Sixteenth and Seventeenth streets NE	.....	.....	.....	477	.....	.....	.....
14	Delaware avenue, between N and O streets SW.	.....	.....	.....	154	.....	.....	.....
15	Delaware avenue, between H and I streets SW.	.....	.....	.....	220	.....	.....	.....
16	D street, between Seventh and Eighth streets NE.	.....	.....	.....	69	.....	.....	.....
17	I street, between Eighth and Ninth streets SE.	.....	.....	.....	116	.....	.....	.....
18	I street, between Ninth and Tenth streets SE.	.....	.....	.....	197	.....	.....	.....
19	M street, between Thirty-fourth and Thirty-fifth streets NW.	.....	.....	.....	238	.....	.....	.....
20	Thirteenth street, between Clifton and Roanoke streets.	.....	.....	71	.....	.....	.....	.....
21	Irving street, between Thirteenth street and Sherman avenue.	.....	.....	.....	.....	.....	.....	291
22	Roanoke street, between Thirteenth street and Sherman avenue.	.....	.....	.....	.....	.....	270	.....
23	.....do	.....	.....	.....	.....	201	.....	.....
24	.....do	.....	.....	.....	194	.....	.....	.....
25	P street, between North Capitol and Florida avenue NE.	.....	.....	.....	182	.....	.....	.....
27	Block south of Levis street, between Bladensburg road and Trinidad avenue.	.....	.....	.....	96	.....	.....	.....
28	Florida avenue, between Connecticut avenue and Twentieth street.	.....	6	146	101	.....	.....	.....
29	Sixteenth street, between Kenesaw avenue and Grant street.	.....	.....	.....	.....	405	.....	.....
30	.....do	.....	.....	.....	414	.....	.....	.....
31	Tenth street, between East Capitol street and Massachusetts avenue NE	.....	11	.....	.....	.....	.....	.....
32	Washington street, between Pierce and Adams streets.	.....	.....	.....	518	.....	33	.....
33	Jefferson street, between Adams and Taylor	.....	.....	.....	277	.....	.....	.....
34	Jefferson street, southeast from Taylor	.....	.....	.....	.....	128	.....	.....
35	Tenth street, between I and K streets SE	.....	.....	.....	235	.....	.....	.....
36	Fourteenth street, between F and G streets NE.	.....	.....	.....	252	.....	.....	.....
37	Twelfth street, between Pennsylvania avenue and E street SE.	.....	.....	85	.....	.....	.....	.....

a Cost of repairs to pavement in addition to cost of work reported in fiscal year 1896.
b Cost of back filling completed after June 30 in addition to report of 1896.

work and the whole cost to applicant for the fiscal year 1897—Continued.

MENT SYSTEM.

Manholes.	Basins.	Branches.	Cost to District of Columbia.	Cost to property owner.	Total cost.	Overseer.	Date of Completion.
.....	.....	.....	$39.00	$38.99	a$77.99	Thomas	July 11, 1896
.....	.....	.....	3.28	3.27	a6.55	Prince	July 2, 1896
.....	.....	.....	5.75	5.75	a b11.50	.....do.....	July 3, 1896
.....	.....	.....	30.75	30.75	a61.50	.....do.....	Sept. 15, 1896
.....	.....	.....	13.84	13.85	a27.69	Condon	July 13, 1896
.....	.....	.....	3.98	3.99	a7.97	.....do.....	July 11, 1896
1	.....	.....	45.46	45.45	90.91	Lanigan	Aug. 1, 1896
1	.....	.....	150.73	150.74	301.47	.....do.....	Do.
1	.....	.....	147.53	147.52	295.05	.....do.....	July 16, 1896
2	.....	18	136.55	136.55	c273.10	Prince	July 6, 1896
1	.....	.....	96.67	96.67	193.34	Lanigan	July 8, 1896
3	.....	.....	871.88	871.88	c1,743.76	Ward	Aug. 21, 1896
2	.....	.....	238.61	238.61	477.22	Prince	July 11, 1896
.....	.....	.....	487.96	487.96	c975.92	A. Neville and Ward.	July 21, 1896
3	1	6	237.70	237.71	475.41	Ward	July 31, 1896
1	.....	8	75.13	75.13	150.26	Prince	July 20, 1896
1	.....	.....	24.48	24.47	c48.95	.....do.....	July 11, 1896
3	.....	15	391.06	391.06	782.12	Lanigan	Oct. 6, 1896
3	.....	3	217.59	217.60	435.19	Ward	Sept. 3, 1896
.....	.....	8	53.32	53.31	106.63	Prince	Jan. 12, 1897
1	.....	8	102.10	102.10	204.20	....do.....	Jan. 16, 1897
1	.....	.....	42.06	42.06	84.12	.....do.....	Nov. 14, 1896
1	.....	1	61.86	61.85	123.71	.....do.....	Oct. 28, 1896
2	.....	10	144.12	144.13	288.25	.....do.....	Nov. 5, 1896
1	.....	8	209.90	209.89	419.79	.....do.....	Aug. 26, 1896
1	.....	4	51.33	51.33	102.66	Ward	Sept. 30, 1896
2	.....	1	495.71	495.71	991.42	.....do.....	Dec. 17, 1896
1	.....	.....	254.36	254.36	508.72	.....do.....	Dec. 28, 1896
1	.....	.....	188.10	188.10	376.20	.....do.....	Dec. 30, 1896
1	.....	4	154.64	154.63	309.27	.....do.....	Dec. 31, 1896
1	.....	4	93.31	93.32	186.63	.....do.....	Aug. 24, 1896
2	.....	9	111.61	111.60	223.21	.....do.....	Aug. 28, 1896
2	.....	11	185.28	185.28	370.56	Prince	Oct. 16, 1896
2	.....	.....	251.25	251.24	502.49	.....do.....	Sept. 12, 1896
2	.....	.....	218.59	218.58	437.17	.....do.....	Sept. 17, 1896
.....	.....	1	4.79	4.79	9.58	Ward	Mar. 15, 1897
3	.....	13	392.82	392.82	785.64	Lanigan	Oct. 7, 1896
2	.....	11	225.14	225.15	450.29	.....do.....	Mar. 18, 1897
.....	.....	1	93.62	93.62	187 24	.....do.....	Sept. 23, 1896
2	.....	11	172.05	172.05	344.10	Ward	Feb. 18, 1897
2	.....	3	202.34	202.34	404.68	.....do.....	Oct. 5, 1896
1	.....	5	53.72	53.71	107.43	Prince	Mar. 2, 1897

c Work begun in fiscal year 1896, cost of work reported in 1896 to be added to cost of work reported in 1897.

Statement of sewers laid under the appropriation for assessment and permit

TABLE 3.—ASSESSMENT

No. of order.	Location.	Pipe sewers laid (length in feet).						
		6-inch.	8-inch.	10-inch.	12-inch.	15-inch.	18-inch.	21-inch.
38	Seventh street, between K and L streets SE.	.....	.....	122	.....	.....	.....	.....
39	School street, between Grant and Park streets.	.....	.....	.....	308	.....	.....	.....
40	Fifth street, between E and F streets NE.	.....	.....	.....	231	.....	.....	.....
41	E street, between Fifth and Sixth streets NE.	.....	.....	188	.....	.....	.....	.....
42	Sixth street, between E and F streets NE.	.....	.....	126	.....	.....	.....	.....
43	Thirteenth street, between E street and Pennsylvania avenue SE.	.....	.....	370	.....	.....	.....	.....
44	Third street, between I and K streets SE.	.....	.....	.....	188	.....	.....	.....
45	Tenth street, between M and N streets SE.	.....	.....	.....	198	.....	.....	.....
46	Florida avenue, between P and Q streets NW	.....	.....	146	24	.....	.....	.....
47	Fifth street, between G street and Virginia avenue SE.	.....	.....	.....	92	.....	.....	.....
48	Water street, between Tenth and H streets SW.	.....	.....	.....	131	.....	.....	.....
49	Canal street, between C and First streets SW.	.....	.....	169	.....	.....	.....	.....
50	Twelfth street, between G and I streets SE.	.....	.....	162	.....	.....	.....	.....
51	First street, between I and K streets SE.	.....	.....	271	.....	.....	.....	.....
52	F street, between Tenth and Eleventh streets NE.	.....	.....	244	.....	.....	.....	.....
53	Twenty-first street, between N and O streets NW.	.....	.....	.....	193	.....	.....	.....
54	Square 880	.....	.....	.....	173	.....	.....	.....
55	M street, between Nineteenth and Twentieth streets NW.	.....	.....	.....	298	.....	.....	.....
56	A street, between Seventh and Eighth streets SE.	.....	.....	.....	234	.....	.....	.....
57	Eighth street, between Maryland avenue and E street NE.	.....	.....	141	.....	.....	.....	.....
58	Eighth street, between F and G streets NE.	.....	.....	144	356	.....	.....	.....
59	Ninth street, between F and G streets NE.	.....	.....	150	356	.....	.....	.....
60	Jackson, between Adams and Fendall streets	.....	.....	.....	.....	396	.....	.....
61	Jackson, between Adams and Fendall streets	.....	.....	.....	437	.....	.....	.....
62	Harrison street, between Fillmore street and Minnesota avenue.	.....	.....	.....	.....	453	.....	.....
63	Harrison street, between Fillmore street and Minnesota avenue.	.....	.....	.....	297	.....	.....	.....
64	Omaha street, between Fifth street and Illinois avenue.	.....	.....	.....	201	267	.....	.....
65	Fifth street, between L and M streets SE.	.....	.....	384	139	.....	.....	.....
66	Square 743 (Van street)	.....	.....	217	216	.....	.....	.....
67	I street, between Third and Fourth streets SE.	.....	71	.....	.....	.....	.....	.....
68	First street, between M and N streets SE.	.....	.....	120	375	.....	.....	.....
69	Tenth, between M street and public space SE.	.....	.....	193	.....	.....	.....	.....
70	L street, between Eighth and Ninth streets SE.	.....	.....	.....	170	.....	.....	.....
71	P street, between Twenty-first and Twenty-second streets, NW.	.....	.....	.....	119	.....	.....	.....
72	Third street, between N street and Georgia avenue SE.	.....	.....	.....	284	.....	.....	.....
74	Sixth street, between L and M streets SE.	.....	.....	151	.....	.....	.....	.....
75	Thirty-fifth street, between U and Thirty-second streets NW.	.....	.....	.....	244	.....	.....	.....
76	Ninth street, between I and K streets SE.	.....	.....	.....	242	.....	.....	.....
77	G street, between Eleventh and Twelfth streets SE.	.....	.....	.....	132	.....	.....	.....
78	Square 276	.....	114	77	.....	.....	.....	.....
79	Tenth street, between E and F steeets SW.	.....	120	73	.....	.....	.....	.....
80	Georgia avenue, between Twelfth and Fourteenth streets SE.	.....	.....	.....	193	.....	.....	.....
81	Twelfth street, between I and K streets NE.	.....	112	173	.....	.....	.....	.....
82	Square 1042	.....	.....	.....	263	.....	.....	.....
83	K street and Georgia avenue, between Twelfth and Thirteenth streets SE.	.....	.....	461	138	.....	.....	.....
84	Florida avenue, between Twelfth and Thirteenth streets NE.	.....	.....	135	180	.....	.....	.....
85	Square 68	.....	.....	118	.....	.....	.....	.....
86	Lamar street, between Morgan and Eslin	.....	.....	174	.....	.....	.....	.....
87	Morgan street, from Lamar southward	.....	.....	.....	.....	117	.....	.....
88	Second street, between L and M streets SE.	.....	.....	287	3	.....	.....	.....
89	Thirty-fifth street, between U and Madison streets NW.	.....	.....	.....	1,070	.....	.....	.....
90	Southeast corner Fifteenth and Rosedale streets NE.	.....	.....	9	.....	.....	.....	.....
91	M street, between Nineteenth and Twentieth streets NW. (south side.)	.....	.....	.....	315	.....	.....	.....

a 200 linear feet 4-inch C. I. connections laid.
b Hard rock found on line of sewer trench, making cost of work exceptionally high.

work and the whole cost to applicant for the fiscal year 1897—Continued.

SYSTEM—Continued.

Manholes.	Basins.	Branches.	Cost to District of Columbia.	Cost to property owner.	Total cost.	Overseer.	Date of Completion.
1	.....	7	$63.87	$63.86	$127.73	Prince	Mar. 17, 1897
1	.....	7	168.17	168.17	336.34	.....do	Sept. 26, 1896
1	.....	.....	134.59	134.59	269.18	Ward	Sept. 12, 1896
1	.....	10	117.47	117.46	234.93	.....do	Oct. 2, 1896
1	.....	9	90.25	90.25	180.50	.....do	Oct. 3, 1896
1	.....	20	176.36	176.37	352.73	Prince	Mar. 5, 1897
1	.....	13	116.76	116.77	233.53	Ward	Dec. 17, 1896
1	.....	6	112.28	112.27	224.55	.....do	Feb. 20, 1897
2	.....	7	145.29	145.28	290.57	Prince	Oct. 6, 1896
1	.....	7	68.24	68.24	136.48	.....do	Apr. 10, 1897
2	.....	4	103.21	103.22	206.43	.....do	Mar. 10, 1897
1	.....	11	73.34	73.34	146.68	.....do	Jan. 18, 1897
2	.....	12	109.21	109.22	218.43	.....do	Feb. 9, 1897
2	.....	17	159.31	159.31	318.62	Ward	June 19, 1897
1	.....	14	134.91	134.92	269.83	Prince	Dec. 18, 1896
1	.....	2	110.45	110.45	220.90	.....do	Oct. 16, 1896
1	.....	10	84.89	84.89	169.78	.....do	Oct. 23, 1896
1	.....	14	231.99	231.99	463.98	Ward	Mar. 2, 1897
2	.....	6	197.43	197.43	394.86	.....do	June 25, 1897
1	.....	6	76.31	76.32	152.63	Prince	Dec. 17, 1896
3	.....	19	330.65	330.64	661.29	Ward	Dec. 14, 1896
3	.....	22	317.56	317.57	635.13	.....do	Jan. 2, 1897
2	.....	15	342.76	342.75	685.51	Prince	Dec. 29, 1896
2	.....	16	333.69	333.70	667.39	.....do	Jan. 2, 1897
3	.....	12	294.51	294.52	589.03	.....do	Dec. 7, 1896
2	.....	12	180.88	180.88	361.76	.....do	Dec. 9, 1896
2	.....	.....	299.39	299.40	598.79	Lanigan	Oct. 30, 1896
3	.....	23	313.34	313.34	626.68	Ward	Dec. 24, 1896
2	.....	35	212.43	212.44	424.87	.....do	May 4, 1897
1	.....	4	50.87	50.87	101.74	.....do	June 19, 1897
2	.....	6	246.99	246.99	493.98	.....do	May 5, 1897
1	.....	8	107.38	107.37	214.75	.....do	May 20, 1897
1	.....	10	112.26	112.26	224.52	.....do	May 21, 1897
1	.....	4	203.69	203.69	a 407.38	Lanigan	Jan. 22, 1897
2	.....	15	142.19	142.20	284.39	Ward	June 19, 1897
2	.....	8	102.11	102.10	204.21	Prince	Jan. 12, 1897
1	.....	8	189.20	189.19	378.39	Ward	Mar. 12, 1897
2	.....	16	159.73	159.73	319.46	.....do	May 27, 1897
2	.....	3	96.17	96.16	192.33	Prince	June 17, 1897
3	.....	16	192.61	192.60	385.21	Ward	Feb. 10, 1897
2	.....	11	121.91	121.90	243.81	Prince	Mar. 6, 1897
.....	.....	11	94.11	94.11	188.22	.....do	May 11, 1897
2	.....	6	200.17	200.17	400.34	Ward	May 3, 1897
1	.....	10	181.63	181.64	363.27	Prince	May 19, 1897
4	.....	22	318.22	318.22	636.44	.....do	June 18, 1897
4	.....	12	300.63	300.63	601.26	Lanigan	June 23, 1897
1	.....	11	142.06	142.05	b 284.11	.....do	Dec. 3, 1896
1	.....	6	76.09	76.09	152.18	Prince	Nov. 18, 1896
.....	.....	3	58.67	58.67	117.34	.....do	Do.
2	.....	13	194.73	194.73	c 389.46	Ward	May 27, 1897
7	.....	22	697.22	697.23	1,394.45	Loulan	Mar. 12, 1897
.....	1	.....	25.86	25.87	51.73	Condon	Dec. 15, 1896
2	.....	12	295.03	295.02	590.05	Ward	Mar. 2, 1897

c Constructed under contract No. 2368, by Adam McCandlish, contractor.

Statement of sewers laid under the appropriation for assessment and permit

TABLE 3.—ASSESSMENT

No. of order	Location.	Pipe sewers laid (length in feet).						
		6-inch.	8-inch.	10-inch.	12-inch.	15-inch.	18-inch.	21-inch.
92	Square 388	.....	74	.....	.....	.....	.....	.....
93	Square 1055	.....	.....	472	.....	.....	.....	.....
94	K street, between Sixth and Seventh streets SE.	.....	99	.....	.....	.....	.....	.....
95	L street, between Fourth and Fifth Streets SE.	.....	.....	.....	213	24	.....	.....
96	C street, between Eleventh and Twelfth streets SE.	.....	.....	236	33	.....	.....	.....
97	East Capitol street, between Thirteenth and Fourteenth streets SE.	.....	.....	.....	417	231	.....	.....
98	F street, between Eleventh and Twelfth streets NE.	.....	.....	.....	210	.....	.....	.....
99	F street, between Twelfth and Thirteenth streets NE.	.....	.....	.....	377	.....	.....	.....
100	E street, between Eighth and Ninth streets SW.	.....	.....	.....	72	.....	.....	.....
101	Eleventh street, between M street and Virginia avenue SE.	.....	.....	164	.....	.....	.....	.....
102	Massachusetts avenue, between Third and Fourth streets NE.	.....	.....	.....	45	.....	.....	.....
103	Twelfth street, between G and I streets SE.	.....	.....	104	.....	.....	.....	.....
104	Georgia avenue, between Eighth and Ninth streets SE.	.....	.....	285	.....	.....	.....	.....
105	I street and Virginia avenue, between Twenty-seventh and Twenty-eighth streets NW.	.....	.....	.....	310	.....	.....	.....
106	H street, between Eleventh and Twelfth streets NE.	.....	.....	119	182	.....	.....	.....
107	C street, between New Jersey avenue and First street SE.	.....	.....	149	161	6	.....	.....
108	K street, between Third and Fourth streets NE.	.....	.....	150	84	.....	.....	.....
109	Third street, between I and K streets NE	.....	.....	.....	237	.....	.....	.....
110	Ninth street, between Providence street and Bunker Hill road.	.....	.....	200	.....	.....	.....	.....
111	Thirteenth street, between D and E streets SE.	.....	.....	106	.....	.....	.....	.....
112	Monroe street, between Buchanan street and Navy place.	.....	.....	190	.....	.....	.....	.....
113	Monroe street, between Navy place and projection of Maple avenue	.....	.....	.....	436	.....	.....	.....
114	B street, between Sixteenth and Seventeenth streets SE.	.....	.....	.....	328	.....	.....	.....
115	E street, between Thirteenth and Fourteenth streets SE.	.....	.....	.....	.....	.....	.....	.....
116	G street, between Fourteenth and Fifteenth streets NE.	.....	.....	.....	367	.....	.....	.....
117	Hartford, between Duncan and Burns streets.	.....	.....	218	.....	.....	.....	.....
118	Square 1020	.....	.....	.....	3	.....	.....	.....
119	Washington street, between Fillmore and Pierce streets.	.....	.....	.....	480	.....	.....	.....
120	Fifth street, between I and K streets (east side) SE.	.....	.....	193	.....	.....	.....	.....
121	Fifth street, between I and K streets (west side) SE.	.....	.....	66	129	.....	.....	.....
122	Fifth street, between K and L streets SE	.....	.....	.....	236	.....	.....	.....
123	North Capitol street, between Patterson and N streets NE.	.....	.....	163	.....	.....	.....	.....
124	Thirty-fourth street, between Q and R streets, NW.	.....	.....	.....	316	.....	.....	.....
125	Spruce street, between Bohrer and Larch streets NW.	.....	.....	.....	.....	.....	.....	.....
126	G street, between Third and Fourth streets NE.	.....	.....	.....	52	.....	.....	.....
129	Block 30, Rosedale and Isherwood	.....	.....	.....	160	.....	.....	.....
130	Twenty-seventh street, between Dumbarton and O streets.	.....	.....	.....	204	.....	.....	.....
131	Twenty-seventh and O streets NW	.....	.....	.....	.....	.....	.....	.....
132	Trinidad street, between Levis and King streets NE.	.....	.....	.....	292	.....	.....	.....
	Total	.....	607	8,465	18,968	3,033	303	291

a Awaiting bill for repairs to pavements.
b 200 linear feet 4-inch C. I. connections laid.
c Reconstructing basin and lowering manhole to grade.

work and the whole cost to applicant for the fiscal year 1897—Continued.

SYSTEM—Continued.

Manholes.	Basins.	Branches.	Cost to District of Columbia.	Cost to property owner.	Total cost.	Overseer.	Date of completion.
.....	.....	7	$32.91	$32.91	$65.82	Prince	Mar. 5, 1897
3	.....	44	283.52	283.53	567.05	....do	May 4, 1897
.....	.....	6	34.20	34.20	68.40	Ward	May 28, 1897
2	.....	9	202.67	202.67	405.34	....do	June 7, 1897
2	.....	13	139.29	139.30	278.59	Prince	June 24, 1897
4	.....	.....	352.89	352.89	705.78	....do	May 12, 1897
1	.....	9	120.74	120.74	241.48	....do	June 23, 1897
2	.....	7	186.02	186.01	372.03	....do	Apr. 23, 1897
1	.....	3	63.50	63.50	127.00	....do	Mar. 6, 1897
2	.....	7	126.15	126.14	252.29	Ward	June 16, 1897
.....	.....	3	21.09	21.10	42.19	Lanigan	June 7, 1897
1	.....	7	87.11	87.12	174.23	Prince	Mar. 2, 1897
2	.....	12	165.27	165.27	330.54	Ward	May 29, 1897
2	.....	8	240.55	240.55	481.10	....do	May 3, 1897
3	.....	5	250.14	250.13	500.27	....do	Do.
3	.....	14	246.44	246.44	492.88	....do	June 21, 1897
2	.....	9	161.81	161.81	323.62	Lanigan	Do.
2	.....	3	160.67	160.66	321.33	....do	June 3, 1897
1	.....	7	127.68	127.69	255.37	....do	May 6, 1897
2	.....	5	101.55	101.56	203.11	Prince	June 18, 1897
1	.....	8	82.22	82.23	*a* 164.45	....do	
2	.....	14	261.63	261.63	*a* 523.26	....do	
2	.....	11	260.04	260.04	*a* 520.08	Ward	
.....	.....	.....	55.96	55.96	*b* 111.92	Prince	May 22, 1897
2	.....	5	193.00	193.00	386.00	Condon	Apr. 26, 1897
2	.....	10	187.85	187.85	375.70	Lanigan	May 15, 1897
.....	.....	.....	17.45	17.44	*e* 34.89	Prince	Apr. 19, 1897
2	.....	12	344.55	344.55	689.10	....do	June 4, 1897
1	.....	11	98.62	98.62	197.24	Ward	June 29, 1897
2	.....	3	144.30	144.30	288.60	....do	June 16, 1897
1	.....	4	129.91	129.91	259.82	....do	June 18, 1897
1	.....	8	102.75	102.75	205.50	Lanigan	June 10, 1897
2	.....	5	223.30	223.31	*a* 446.61	....do	
.....	.....	.....	31.20	31.20	*d* 62.40	....do	June 15, 1897
.....	.....	2	34.15	34.15	68.30	....do	June 23, 1897
1	.....	5	106.65	106.66	213.31	....do	June 26, 1897
3	.....	18	187.05	187.05	374.10	Prince	June 30, 1897
.....	.....	.....	8.10	8.11	*a e* 16.21	....do	
2	.....	14	204.40	204.40	*f* 408.80	Ward	
201	2	1,043	22,166.37	22,166.38	44,332.75		

d 105 linear feet 4-inch C. I. connections laid.
e Adjusting basins.
f Work completed in fiscal year 1898.

Statement of sewers laid under the appropriation for assessment and permit

TABLE 4.—

No. of order.	Location.	Pipe sewers laid (length in feet).						
		6-inch.	8-inch.	10-inch.	12-inch.	15-inch.	18-inch.	21-inch.
1	H street, between Fourth and Fifth streets NE.	.....	20	.....	.....	.....	.....	.....
2	P street, between Eighth and Ninth streets NW.	.....	.....	.....	41	.....	.....	.....
3	Front of No. 2200 Q street NW	.....	.....	.....	3	.....	.....	.....
4	Square 1039	.....	115	.....	.....	.....	.....	.....
5	Pennsylvania avenue, between Sixth and Seventh streets NW.	.....	.....	.....	.....	.....	.....	3
6	Square 756	.....	14	.....	.....	.....	.....	.....
7	Square 413 and Eighth street, between F and G streets SW.	.....	73	.....	.....	.....	.....	.....
8	Fourteenth and F streets NW	.....	.....	.....	.....	.....	.....	.....
9	D street, between Sixth and Seventh streets NE., rear of No. 608 Maryland avenue.	.....	.....	.....	3	.....	.....	.....
10	Twelfth street, between G and I streets SE.	.....	.....	11	.....	.....	.....	.....
11	Fifteenth street, between S street and Pierce place NW.	.....	86	.....	.....	.....	.....	.....
12	Princeton, crossing Fourteenth street NW.	.....	.....	66	.....	.....	.....	.....
13	S street, between Sixth and Seventh streets NW.	.....	60	.....	.....	.....	.....	.....
14	Thirteenth and Harvard	.....	.....	.....	.....	.....	.....	.....
15	Connecticut avenue, between Florida avenue and Le Roy place.	.....	.....	.....	.....	.....	.....	.....
	Total	.....	368	77	47	.....	.....	3

a Replacing length of pipe tapped through error of plumber.
b Constructing drain for telephone company manhole. Work was performed by Lyons Bros., in connection with their work under contract No. 2328.

work and the whole cost to applicant for the fiscal year 1897—Continued.

WHOLE COST.

Manholes built.	Basins built.	Branches used.	Amount of deposit.	Cost to property owner.	Amount returned	For whom done.	Overseer.	Date of completion.
.....	.....	1	$24.00	$16.55	$7.45	J. N. Sterzer.....	Lanigan ...	July 16, 1896
1	.....	1	110.00	75.45	34.55	Jno. C. White	Prince	Aug. 19, 1896
.....	.....	.....	3.80	*a* 3.80	.....	Edw. H. Tompkins...	....do	Do.
1	.....	8	162.00	129.26	32.74	L. M. Saunders.....	Ward	Oct. 6, 1896
.....	.....	.....	3.12	*b* 3.12	.....	A. S. Dent.....	Thomas	Oct. 3, 1896
.....	.....	1	24.00	23.98	.02	Bernard Walls.....	Condon	Dec. 16, 1896
1	.....	2	158.00	95.21	62.79	Geo. W. Hall	Prince	May 31, 1897
.....	.....	.....	25.00	9.70	15.30	Ches. & Poto. Tel. Co.	French.....	Apr. 21, 1897
.....	.....	.....	3.92	*c* 3.92	.....	Peter Daly.....	Prince	Apr. 10, 1897
.....	.....	1	18.00	12.62	5.38	Nils Molin	....do	Apr. 29, 1897
1	.....	1	143.00	120.36	22.64	D. M. McPherson	Condon	June 25, 1897
1	.....	.....	182.00	131.87	50.13	C. A. Didden	....do	June 29, 1897
.....	.....	3	80.00	67.07	12.93	Louis A. Sievers.....	....do	June 19, 1897
.....	.....	.....	15.00	8.87	6.13	F. T. Sanner.....	Thomas	May 29, 1897
.....	.....	.....	.....	*d* 69.66	.....	Met. R. R. Co.....	Condon	June 22, 1897
5	.....	18	951.84	771.44	250.06			

c Pumping out pond.
d Reconstructing manholes, charged to general deposit.

Work done by day labor under various

TABLE 5.—REPLACING

No. of order.	Location.	Pipe sewers laid (length in feet.)							
		6-inch.	8-inch.	10-inch.	12-inch.	15-inch.	18-inch.	21-inch.	24-inch.
1	M street, between Four-and-a-half and Sixth streets SW	15	.....	.....	.....	291	.....	.....	.....
2	S street, between Sixth and Seventh streets NW	9	.....	.....	.....	.....	.....	234	.....
3	S street, between Sixth and Seventh streets NW	24	.....	.....	145	.....	117	.....	.....
4	Square 337	45	.....	.....	274	.....	.....	.....	.....
6	West side Third street, between P and Q streets NW	54	.....	.....	295	.....	45	.....	.....
8	West side Eighth street, between B and C streets SW	18	.....	.....	327	.....	.....	.....	.....
9	East side Four-and-a-half street, between C and D streets SW	48	.....	.....	287	.....	.....	.....	.....
10	Square 398	102	.....	.....	245	.....	.....	.....	.....
11	Crossing, P street, between Eighth and Ninth streets NW	.....	.....	.....	.....	69	.....	.....	.....
12	Square 397	111	.....	.....	.....	373	.....	.....	.....
13	R street, between Seventeenth and Eighteenth streets NW	10	.....	.....	.....	.....	.....	251	.....
14	R street, between Seventeenth and Eighteenth streets NW	6	.....	.....	.....	.....	251	.....	.....
15	R street, between Seventeenth and Eighteenth streets NW	8	.....	.....	255	.....	.....	.....	.....
18	N street, between Four-and-a-half and Sixth streets SW	17	.....	*e* 9	.....	196	.....	.....	.....
19	Four-and-a-half street, between N and O streets SW	81	.....	397	152	.....	.....	.....	.....
20	F street, between Nineteenth and Twentieth streets NW	39	.....	.....	48	66	415	.....	.....
21	F street, between Twentieth and Twenty-first streets NW	108	.....	.....	408	.....	.....	.....	.....
22	Florida avenue, between Seventh and Eighth streets NW	30	.....	.....	259	.....	.....	.....	.....
23	Washington circle, between Twenty-third street and Pennsylvania avenue	3	.....	19	.....	.....	.....	.....	.....
24	Twenty-seventh street, between I and K streets NW	19	30	.....	.....	.....	175	.....	.....
25	Intersection of Second and M streets SE	.....	.....	.....	.....	27	.....	.....	.....
26	I street, between Four-and-a-half and Sixth streets SW	6	.....	.....	.....	166	.....	.....	.....
27	Eleventh street, between D and E streets SE	60	.....	.....	.....	382	.....	.....	.....
28	N street, between Four-and-a-half and Sixth streets SW (south side)	21	.....	.....	.....	454	12	.....	.....
29	Four-and-a-half street, between N and O streets SW	111	.....	525	.....	12	.....	.....	.....
30	O street, between Four-and-a-half and Sixth streets SW	30	.....	.....	.....	238	.....	.....	.....
31	Thirteen-and-a-half street, between B and C streets SW	69	.....	.....	445	.....	.....	.....	.....
32	N street, between Twenty-second and Twenty-third streets NW	.....	.....	.....	48	60	.....	.....	216
33	Square 304	102	.....	.....	44	214	168	.....	.....
35	South side G street, between Sixth and Seventh streets SW	51	.....	.....	.....	56	370	.....	.....
36	Crossing G street, between Sixth and Seventh streets SW	6	.....	87	60	114	.....	.....	.....
38	West side Sixth street, between F and G streets SW *k*	9	.....	.....	60	.....	.....	.....	.....
41	East side Tenth street, crossing T street NW	.....	.....	.....	.....	.....	51	.....	.....
	Total	1,212	30	1,037	3,352	2,718	1,604	485	216

NOTE.—Six-inch pipe used in making house connections

a The net cost of sewer is determined by deducting the cost of repairs to pavement plus the cost of connections from the total cost.
b Cost of plumbing work, reconnecting No. 1528 Third street.
c Awaiting bill for repairs to pavements.
d Cost of repairing connection and water service pipe.
e Nine linear feet basin connection.

sewer appropriations, fiscal year 1897.

OBSTRUCTED SEWERS.

House connections made.	Total relaid.	Manholes.	Basins.	Branches	Cost of materials.	Cost of labor.	Cost of repairs to pavements.	Total cost.	Cost of connections.	Net cost of sewers.a
6	297	1	.....	15	$116.13	$399.01	$34.38	$549.52	$9.14	$506.00
4	240	3	.....	6	152.68	458.12	7.78	618.58	34.57	576.23
7	266	1	.....	11	105.13	355.39	12.64	473.16	17.40	443.12
20	322	1	.....	17	104.13	651 82	56.25	812.20	78.82	677.13
13	350	2	.....	14	137.60	590.02	*b* 9.50	*c* 737.12	.....	727.62
5	371	3	.....	9	139.33	354.00	.....	493.33	4.31	489.02
13	295	2	.....	13	113.86	307.84	*d* 3.80	425.50	21.69	400.01
32	255	2	1	28	126.73	466.80	77.55	671.08	82.68	510.85
.....	70	1	.....	.....	37.48	131.61	27.16	196.25	.....	169.09
53	471	3	3	50	248.84	988.13	128.93	1,365.90	156.64	1,080.33
5	250	1	.....	10	156.63	476.35	.....	632.98	11.03	621.95
4	256	1	.....	4	128.41	397.56	29.15	555.12	.....	525.97
3	250	2	.....	3	96.47	391.24	11.47	499.18	26.46	461.25
4	199	2	.....	5	100.64	327.85	29.45	457.94	16.20	412.29
20	562	4	.....	27	190.55	653.32	55.16	899.03	*f* 84.50	759.37
10	538	3	.....	11	298.28	805.86	116.08	1,220.22	*g* 214.46	889.68
22	413	2	.....	24	145.31	489.28	101.41	736.00	43.37	591.22
8	259	2	.....	8	95.88	412.77	46.33	554.98	16.74	491.91
1	22	.....	.....	2	5,21	22.93	2.23	30.37	.....	28.14
4	202	1	.....	11	108.91	349.45	.....	458.36	*h* 57.33	401.03
.....	29	1	.....	.....	25.02	46.26	.....	*c* 71.28	.....	71.28
5	168	.....	.....	5	63.54	222.05	22.02	307.61	7.90	277.69
10	392	2	.....	14	162.30	441.50	59.46	663.35	*i* 43.54	560.35
14	473	2	.....	16	210.56	576.01	14.68	801.25	21.93	764.64
19	553	4	.....	27	201.81	647.34	*j* 86.20	935.35	53.28	795.87
9	243	1	.....	9	108.06	299.36	32.01	439.43	13.55	393.87
21	451	1	.....	23	146.99	607.88	48.91	803.78	42.11	712.76
.....	323	4	.....	.....	249.96	785.13	70.42	*c* 1,105.51	45.82	989.27
44	428	4	1	42	266.32	1,029.58	.....	*c* 1,295.90	96.60	1,199.30
15	440	2	.....	15	253.06	727.13	.....	*c* 980.19	26.14	954.05
.....	265	2	.....	3	92.21	320.12	.....	*c* 412.33	.....	412.33
3	.....	.....	.....	3	16.65	92.92	.....	109.57	.....	109.57
.....	52	1	.....	.....	37.39	115.26	.....	*c* 152.65	.....	152.65
374	9,703	61	5	425	4,442.16	14,939.89	1,082.97	20,465.02	1,226.21	18,155.84

f Includes $34.87, cost of extra manhole.
g Includes $144.28, cost of connecting sewers in east and west side of Twentieth street.
h Includes $23.24, cost of connecting sewers in alley.
i Includes $4.38, cost of new bottom in old manhole.
j Includes $6.15, cost of repairing water service pipes.
k Work completed in fiscal year 1896.

Work done by day labor under various sewer

TABLE 6.—MAIN AND

No. of order.	Location.	Pipe sewer laid (length in feet).				
		6-inch.	8-inch.	10-inch.	12-inch.	15-inch.
1	I street, between Twelfth and Thirteenth streets SE. *a*					124
2	Square 995 *b*			6	12	129
4	Square 835 *c*			3		
5	Crossing, I street, between Third and Fourth streets NE. *d*					
6	Thirteenth street, between C and D streets SE. *e*				156	222
7	First street, between O and P streets NW				255	
9	M street, between Thirty-fifth and Thirty-sixth streets NW					
10	Crossing, Thirteenth street, between South Carolina and Kentucky avenues SE					45
11	First street, between O and P streets SW					
12	Intersection of Twelfth and O streets SE					
13	G street between Pennsylvania avenue and Fourteenth street SE					
14	G street and Pennsylvania avenue, between Thirteenth and Fourteenth streets SE					378
15	I street, between Twelfth and Thirteenth streets SE				205	127
16	NW. corner Third and C streets SW				3	
17	NE. and SE. corners Twenty-fifth and N streets NW			9		
20	NE. corner First and Heckman streets SE				21	
21	E street, between Seventh and Eighth streets NE					286
22	Across intersection North Carolina avenue and Fourteenth street NE					135
23	Fifth street, between G street and Virginia avenue SE				57	
24	N street, between Third and Four-and-a-half streets SW			94		
25	NW. corner Eighteenth street and Riggs place NW				6	
26	NE. corner Florida avenue and Quincy street NW				18	
27	SW. corner Florida avenue and Q street NW					
28	NE. corner Delaware avenue and M street NE			30		
29	NE. corner Fourth and M streets NE			15		
30	NW. corner Fourth and M streets NE			15		
31	NE. corner Fifth and M streets NE			3		
32	NE. corner Sixth and M streets NE			3		
34	Scott avenue, between Brightwood and Warder avenues			6		
35	Fourteenth street, between B and C streets SE				18	
36	NW. corner Thirteenth street and Columbia road NW				30	
37	NW corner Thirteenth and Clifton streets NW					
38	NE. corner Sherman avenue and Harvard street				18	
39	NW. corner Sherman avenue and Harvard street				21	
40	NE. corner Sherman avenue and Princeton street				24	
41	NW. corner Sherman avenue and Princeton street				27	
42	NE. corner Bismark street and Sherman avenue				21	
43	NW. corner Sherman avenue and Bismark street				24	
44	NE. corner Sherman avenue and Irving street				48	
45	SW. corner Thirteenth and Princeton streets NW				36	

a Work begun in fiscal year 1896.
b Filling pond.
c Repairing flume (Hill's).

ppropriations, fiscal year 1897—Continued.

PE SEWERS.

ipe sewer laid (length in feet).			Manholes.	Basins.	Branches.	Cost of material.	Cost of labor.	Cost of repairs to pavements.	Total cost.
8-inch.	21-inch.	24-inch.							
					8	$42.97	$70.41		$113.38
			1	1		78.73	188.30		267.03
				1		16.25	22.75		39.00
	66		1			58.30	141.18		199.48
			3			152.79	363.37		516.16
			1		9	87.55	260.79		348.34
258			2		6	142.13	441.77		583.90
			1			29.37	64.42		93.79
			1			14.47	17.19		31.66
							196.37		*b* 196.37
383			2		4	193.11	397.75	$35.99	626.85
			2		3	158.35	314.48	36.37	509.20
			2		22	131.77	247 74		379.51
				1		31.79	28.50		60.29
				2		61.71	59.93		121.64
				1		36.45	30.31		66.76
			2		5	130.33	277.26		407.59
			1			61.62	135.13		196.75
						14.29	38.98	5.13	58.40
			1		2	32.52	105.09		*c* 137.61
				1		31.47	31.25		62.72
				1		34.26	27.62		61.88
				1		29.41	29.05		58.46
				1		37.49	28.36		65.85
				1		23.34	38.83		62.17
				1		23.19	32.22		55.41
				1		20.41	33.98		54.39
				1		31.39	34.63		66.02
				1		17.26	26.87		44.13
			1			19.09	49.73		68.82
				1		21.90	41.37		63.27
				1		29.09	27.56	2.40	59.05
				1		22.02	34.16		56.18
				1		22.06	35.34		57.40
				1		23.70	38.88		62.58
				1		23.74	31.88		55.62
				1		23.30	36.42		59.72
				1		23.14	37.37		60.51
				1		28.19	37.69		65.88
				1		21.48	44.01		65.49

d Hard rock was found in the line of sewer trench, thereby making the cost exceptionally high.
c Awaiting bill, repairs to pavements.

Work done by day labor under various sewer

TABLE 6.—MAIN AND PIPE

No. of order.	Location.	Pipe sewer laid (length in feet).				
		6-inch.	8-inch.	10-inch.	12-inch.	15-inch.
46	SW. corner Thirteenth and Yale streets NW			27		
49	K street, crossing Third street SE					42
50	Sixth street, between E and F streets NE			81		
51	Square 185				144	
52	Massachusetts avenue, between A and East Capitol streets				102	
53	B street, between Thirteenth and Fourteenth streets SE					
54	Square 859					
55	Connecticut avenue, between Q and R streets NW. *a*					
56	NE. corner Connecticut avenue and Q street NW. *b*					
57	R street, between Twentieth and Connecticut avenue NW. *c*					
58	M street, between Thirty-fifth and Thirty-sixth streets NW				3	
59	Eighteenth, N street, and Connecticut avenue NW			30	6	
60	Rhode Island avenue and Metropolitan Branch of B. & O. R. R					
61	NW. corner Eighteenth and M streets NW				36	
64	SW. corner South Carolina avenue and Thirteenth street SE			42		
65	Intersection of C street and South Carolina avenue SE				33	
66	Twenty-first street, between N and O streets NW				18	
67	Maryland avenue, between Ninth and Tenth streets SW				414	
68	M street, at Florida avenue NE. *e*					
69	Potomac street (Georgetown)					
70	Thirty-fifth street, from U street, northward				90	33
71	M street, between Fifth and Sixth, SE					138
72	NW. corner Ninth and I streets SE. *g*					
73	NE. corner Eighth and I streets SE. *h*					
74	NE. corner Ninth and I streets SE. *i*					
75	K street, between Twelfth and Thirteenth streets SE					147
76	Square 68 *j*				168	
77	Twelfth street, between H and I streets NE					
78	Square 736			3		
79	Ninth street, crossing H street NE					54
80	N street, crossing Canal street SE					
81	NE. corner LeRoy and Phelps places			33		
82	SE. corner Fifteenth and F streets NW				9	
83	Square 894				138	
84	Square 557		58			
85	Twelfth street, between I and G streets SE			134		
86	NW. corner Ninth and B streets NW. *k*					
88	Fifteenth street, between East Capitol and H streets SE					
89	O street, just west of Thirty-second street				3	
91	Third street, crossing G street NE. *d*				12	
92	Whitney avenue, between Thirteenth and Fourteenth streets NW. *l*			93	33	
93	Fourteenth street, between East Capitol and A streets SE. *m*					
94	Nineteenth street, crossing M street NW. *n*					
96	E street, between Eighth and Ninth streets SW				107	

a In connection with job No. 8, miscellaneous.
b In connection with job No. 7, miscellaneous.
c In connection with job No. 9, miscellaneous.
d Awaiting bill, repairs to pavements.
e In connection with job No. 15, miscellaneous.
f Repairing flume (Hill's).
g In connection with job No. 22, miscellaneous.
h In connection with job No. 20, miscellaneous.

appropriations, fiscal year 1897—Continued.

SEWERS—Continued.

Pipe sewer laid (length in feet).			Manholes.	Basins.	Branches.	Cost of material.	Cost of labor.	Cost of repairs to pavements.	Total cost.
18-inch	21-inch.	24-inch.							
				1		$35.04	$46.04		$81.08
			1			29.68	66.89	$19.88	116.45
						17.51	54.67	7.37	79.55
			1			50.23	183.92	60.74	294.89
261			1	1		183.30	315.32		498.62
267			1			132.52	266.35		398.87
			1			12.48	14.43		26.91
						8.08			8.08
						8.08			8.08
						8.08			8.08
			1	1		30.82	54.19		85 01
54		72	1	3		164.37	319.11	31.02	514.50
		36		4		107.46	157.48		264.94
				1		29.00	50.34		79.34
				1		28.13	50.63		78 76
				1		27.43	36.36		63.79
						4.85	17.75	1.42	24.02
			4		18	165.21	291.45		*d* 456.66
						7.86			7.86
						30.42	131.51	10 35	*f* 172 28
			2		9	174.46	397.27	60 81	632 54
			2			76.21	150.48	8.43	235 12
						8.08			8.08
						8.08			8 08
						8.08			8.08
			1			64.62	122.53	19.90	207.05
			1			66.07	359.77	32.09	457.93
407			2		10	214.91	496.34	42.56	753.81
				1		16.03	24.20		40.23
			1			32.49	53.99	18.09	104.57
3	204	12				127.80	322.15	29.05	479.00
				1		38.20	44.74		82.94
				1		22.37	39.81	3.99	66.17
			2	1		75.49	166.05	5.20	246.74
			1		5	24.61	80.86	37.36	142.83
			2		7	57.83	138.57	11.70	208.10
						6.41			6.41
350			2		4	177.50	363.53		541.03
				1		18.46	36.47	8.84	63 77
	45		1			42.17	107.96	26.41	176.54
			1	4		108.40	275.36		383.76
57		84	1			100.58	199.41		299 99
	21		1			28.41	95.78	12.70	136.89
			1		1	40.14	95.87	10.70	146.71

i In connection with job No. 21, miscellaneous.
j Hard rock was found in the line of sewer trench, thereby making the cost exceptionally high.
k In connection with job No. 6, miscellaneous.
l Includes $2.50, cost of reerecting gas lamp, and $2.62, cost of reconnecting No 822 Twentieth street.
m Includes $3.22, cost of repairing water-service pipe.
n Cost of moving gas lamps.

Work done by day labor under various s

TABLE 6.—MAIN AND I

No. of order.	Location.	Pipe sewer laid (length in feet).				
		6-inch.	8-inch.	10-inch.	12-inch.	15-in
97	O street, between Twenty-seventh and North streets NW					
98	North street, between O and P, and P street, between North and Rock Creek				36	
100	G street, between Twentieth and Twenty-first streets NW					
104	Twentieth street, between G and H streets NW (east side)				347	
105	Twentieth street, between G and H streets NW (west side) *a*			215		
106	H street, between Twentieth and Twenty-first streets NW				60	
107	East side Twentieth street, between H street and Pennsylvania avenue NW. *a*			250		
108	West side Twentieth street, between H street and Pennsylvania avenue NW. *a*			321		
109	East side Twenty-first street, between F and G Streets NW. *a*				141	
110	West side Twenty-first street, between F and G streets NW. *a*					
111	East side Twenty-first street, between H and I streets NW. *a*			188		
112	West side Twenty-first street, between H and I streets NW. *a*			306	6	
114	High street, at junction with Pierce					
115	Southwest and northwest corners Fifth and G streets NE. *a*				9	
116	Square 617					
116½	NW. corner Fifth and L streets SE				15	
117	NW. corner Sixth and L streets SE				18	
118	NE. corner Sixth and L streets SE				18	
119	SE corner Canal and L streets SE				12	
120	NE. corner Public Space and L street SE				9	
121	Seventeenth street, between Seaton V streets NW				97	
122	L street, between Sixth and Seventh streets SE			197	281	
123	Intersection of Jackson and Adams streets. *a*					
124	Tenth street, between C and D streets SW. *a*			82		
125	R street, crossing Florida avenue NW					
126	I street, between Third and Fourth streets NE					
127	West side Fifteenth street, crossing G street NE					
128	P street, between North street and Rock Creek				216	
129	East side Fifteenth street, between Rosedale and Gales streets NE				54	
130	NE. corner Seventh and L streets SE. *c*					
131	Sixth and L streets SE					
132	Square 881			33		
133	Thirty-fourth street, between N and O streets NW. *a*					
134	G street, from Ninth westward, NW					
135	Square 375				282	
136	Tenth street, between K and L streets SE				17	
137	Thirty-fifth street, between N and O and N crossing Thirty-fifth streets. *a*					
138	L street SE., 10 feet west of railroad track into navy-yard			39		
139	NE. corner Twenty-fourth and I streets NW. *e*					
140	SE. corner Twenty-fourth and I streets NW. *f*					
141	Jackson street, between Taylor and Fendall		27			
142	SE. corner Sherman and Whitney avenues			33		
143	NE. corner New Hampshire avenue and I street NW				27	
144	Intersection Spring road and Holmead avenue				15	

a Awaiting bill, repairs to pavements.
b Includes $2.50 cost of reerecting gas lamp, and $2.62, cost of reconnecting No. 822 20th s
c In connection with job No. 25, miscellaneous.

opriations, fiscal year 1897—Continued.

ERS—Continued.

sewer laid (length in feet).		Manholes.	Basins.	Branches.	Cost of material.	Cost of labor.	Cost of repairs to pavements.	Total cost.
ch.	21-inch	24-inch.						
.....	310	.....	1	.....	8	$215.80	$357.41	.....	$573.21
18	253	.....	2	.....	11	202.48	331.67	$23.09	557.24
42	142	.....	2	.....	11	134.92	311.09	91.39	537.40
.....	.....	.....	2	.....	13	109.16	383.42	43.90	536.48
.....	.....	.....	2	.....	13	131.70	361.24	24.22	517.16
165	.....	.....	2	.....	3	120.67	321.13	80.42	531.22
.....	.....	.....	1	.....	8	72.26	264.71	24.72	361.69
.....	.....	.....	2	.....	12	106.00	361.86	*b* 41.84	506.70
.....	.....	30	2	.....	3	153.41	474.72	26.99	655.12
322	45	.....	3	.....	8	229.59	548.73	75.09	853.41
.....	33	.....	3	.....	12	158.66	520.23	52.95	731.84
.....	.....	.....	2	.....	12	103.33	359.52	.....	462.85
.....	21	.....	.....	1	.....	29.75	46.99	.....	76 74
75	.....	.....	2	2	.....	121.62	248.09	.....	369.71
18	.....	.....	1	.....	.....	22.21	39.12	.....	61.33
.....	.....	.....	.....	1	.....	21.58	35.44	.30	57.32
.....	.....	.....	.....	1	.....	22.89	29.09	.....	51.98
.....	.....	.....	.....	1	.....	22.29	33.00	.....	55.29
.....	.....	.....	.....	1	.....	20.97	27.10	.....	48.07
.....	.....	.....	.....	1	.....	19.28	26.24	.....	45.52
.....	.....	.....	1	.....	5	40.07	135.47	11.01	186.55
.....	.....	.....	3	.....	8	158.44	457.72	.....	616.16
.....	.....	.....	.....	1	.....	28.27	54.50	2.58	85.35
.....	.....	.....	.....	.....	2	17.13	55.82	.....	72.95
.....	.....	.....	1	.....	.....	33.01	73.94	33.63	140.58
.....	.....	.....	1	.....	.....	76.25	140.09	.....	216.34
48	.....	.....	1	.....	.....	36.27	64.40	5.33	106.00
.....	.....	.....	.....	.....	12	57.95	233.98	21.10	313.03
.....	.....	.....	1	.....	.....	27.50	70.49	3.68	101.67
.....	.....	.....	.....	.....	.....	6.22	.....	.....	6.22
3	.....	.....	1	.....	.....	16.45	29.92	.....	46.37
.....	.....	.....	.....	1	.....	23.15	29.93	.....	53.08
.....	268	.....	1	.....	2	163.31	427.06	*d* 55.77	646.14
97	53	.....	2	.....	3	98.97	295.93	32.00	426.90
.....	.....	.....	3	.....	28	194.55	648.32	40.88	883.75
.....	.....	.....	.....	.....	1	5.04	10.05	.....	15.09
273	.....	.....	3	.....	9	175.27	563.57	29.74	768.58
.....	.....	.....	.....	1	.....	23.07	33.05	.....	56.12
.....	.....	.....	.....	.....	.....	6.22	.....	.....	6.22
.....	.....	.....	.....	.....	.....	5.99	.....	.....	5.99
.....	.....	.....	.....	1	.....	20.49	44.25	.....	64.74
.....	.....	.....	.....	1	.....	24.36	47.34	.....	71.70
.....	.....	.....	.....	1	.....	23.04	35.50	.....	58.54
.....	.....	.....	.....	1	.....	21.54	34.75	.....	56.29

d Includes $3.22, cost of repairing water-service pipe.
e In connection with job No. 32, miscellaneous.
f In connection with job No. 33, miscellaneous.

Work done by day labor under various sewer

TABLE 6.—MAIN AND PIPE

No. of order.	Location.	Pipe sewer laid (length in feet).				
		6-inch.	8-inch.	10-inch.	12-inch.	15-inch.
145	NW. corner New Hampshire avenue and I streets NW.*a*					
146	NW. and NE. corners Howard avenue and Piney Branch road			39		
147	SE. corner Third and F streets NE.*b*					
148	SE. corner Fourth and F streets NE.				9	
149	South side G street, between Third and Fourth streets NE.*c*				138	
150	North side K street, between Fifth and Sixth streets SE.					72
151	SW. corner Thirty-first and M streets NW.*d*					
152	Thirty-Fifth street, between T and U streets NW.*c*			60		
153	SE. corner Pennsylvania avenue and Ninth streets NW.*e*					
154	West side Eleventh street SE., near Anacostia bridge					
155	NW. corner Eleventh and O streets SE.				6	
156	NW. corner Eleventh and N streets SE.				3	
	Total		85	2,390	4,132	3,117

TABLE 7.—SUBURBAN

No. of order.	Location.	Pipe sewers laid (length in feet).			
		10-inch.	12-inch.	15-inch.	18-inch.
1	Alley rear of Arthur street (Anacostia)				
3	Q street, between Third and Fourth streets NE.				
4	Third street, between Q and R streets NE.				84
5	Alley rear of Arthur street (Anacostia)				
7	Gales street, between Sixteenth and Seventeenth streets NE.		105		
8	Grant street, between School and Fifteenth streets			468	
9	Intersection of Jefferson and Taylor streets		69		
10	Fifth street, between Omaha and Philadelphia streets				
11	Phelps place, between Bancroft place and California avenue		436		
12	New York avenue between Florida avenue and B. & O. R. R.				
13	Lamar street, between Eslin and Morgan streets		186		
14	Eighth street, between Lowell and Milwaukee streets				
15	Seventh street, between Milwaukee street and Bunker Hill road				
16	Milwaukee street, between Seventh and Eighth streets				
17	Whitney avenue, between Holmead avenue and Fourteenth streets		255		
18	Hartford street, between Ninth and Tenth streets NE				
19	Hartford street, between Tenth and Twelfth streets NE				457
20	Frankfort street, between Tenth and Twelfth streets NE				452
21	Frankfort street, between Ninth and Tenth streets NE				
22	Providence street, between Tenth and Twelfth streets NE				452
23	Fourteenth street, between Yale and Princeton streets	3			270
24	Morgan avenue, between Lamar and Lydecker avenues			50	
25	Dover street, between Tenth and Twelfth streets				
26	Hartford street, between Duncan and Burns streets	82			
	Total	85	1,051	518	1,715

a In connection with job No. 34, miscellaneous.
b In connection with job No. 36, miscellaneous.
c Awaiting bill, repairs to pavements.

riations, fiscal year 1897—Continued.

S—Continued.

ewer laid (length in feet).		Manholes.	Basins.	Branches.	Cost of material.	Cost of labor.	Cost of repairs to pavements.	Total cost.
21-inch.	24-inch.							
					$6.22			$6.22
			2		42.56	$78.89		121.45
					4.77			4.77
			1		20.71	42.06		62.77
		1			79.78	174.99	$20.27	275.04
		3		2	179.99	398.55		578.54
					6.22			6.22
		1			26.33	56.81		83.14
					6.00			6.00
30			1		28.24	37.08		65.32
			1		19.06	35.99		55.05
			1		18.46	30.50	*f* 4.00	52.96
1,491	234	103	68	299	8,334.85	19,148.27	1,292.40	28,775.52

S.

wers laid in feet).		2.25 by 3.375 brick.	Manholes.	Branches.	Cost of materials.	Cost of labor.	Cost of repairs to pavements	Total cost.
	24-inch.							
		126.2	1		$83.26	$308.40		$391.66
					225.73	764.42		990.15
	195		2		211.00	613.33		824.42
			1		103.77	332.29		436.06
					26.99	94.81		121.80
			2	9	188.61	404.55		593.16
			1		31.59	55.53		87.12
			2		319.10	594.39		913.49
			3	14	152.35	368.31	$24.34	545.00
			2		203.04	361.12		564.16
			1		59.74	129.38		189.12
	361			2	276.24	566.94		843.18
			2		219.66	360.36		580.02
			1	4	229.02	413.10		642.12
			1	3	68.47	232.64		301.11
			1	5	189.73	435.39		625.12
			2	8	233.70	450.46		684.16
			1	4	219.19	486.24		705.43
			1		202.79	568.87		771.66
			2	4	229.59	446.54	*g* 38.53	714.66
			1		130.27	273.25	46.66	450.18
				1	17.88	61.01		78.89
	283			2	218.05	530.28		748.33
				2	18.03	56.73		74.76
	839	126.2	27	58	3,857.89	8,908.34	109.53	12,875.76

In connection with job No. 35, miscellaneous.
In connection with job No. 39, miscellaneous.
Cost of moving gas lamps.
Cost of lowering water main, $36.18; cost of repairing water-service pipe, $2.35.

Work done by day labor under various sewer

TABLE 8.—FLUSHING BASINS

No. of order.	Location.	Terra cotta pipe (length in feet).		
		6-inch.	8-inch.	12-inch.
1	Square 1026		3	3
2	Connecticut avenue, between N street and Dupont Circle		30	
3	South side N street, east of Third street NW		2	
4	North side P street, east of Eighth street NW	2	11	
5	East side Tenth street, south of S street NW	1	3	22
6	West side Fifteenth street, south of P street NW		3	
7	East side Nineteenth street, south of S street NW		6	
8	Square 368		3	
9	SW. corner Seventh street, North Carolina avenue SE		7	
	Total	3	68	25

TABLE 9.—MISCELLANEOUS APPROPRIATIONS IN FIS

No. of order.	Location.	Pipe sewers laid (length in feet).						
		8-inch.	10-inch.	12-inch.	15-inch.	18-inch.	21-inch.	24-inch.
1	Lansing street, between Queen and Wallace streets.						305	
2	Providence street, between Queen and Wallace streets.							301
3	Lansing street, between Wallace and Duncan streets.					454		
1	Kenesaw avenue, between Sixteenth street and Rock Creek.							
2	Twenty-sixth and M streets, NW.							
3	O street, between Twenty-second street and Rock Creek.							
4	....do	45						
1	Fifteenth street extended, between Columbia road and Kenesaw avenue.		584					
1	Fifteenth street, between Pennsylvania avenue and F street, and F street east of Fifteenth.							
2	F street, between Fourteenth and Fifteenth streets NW.							
3	F street, between Thirteenth and Fourteenth streets NW.							
1	U street, between Sixteenth and Seventeenth streets NW.		21					
3	NW. corner Seventeenth and U streets NW			9				
4	NE. corner Seventeenth and U streets NW			9				
5	NE. corner Florida avenue and U streets NW			12				
18	South side Florida avenue west of North Capitol street. *g*							
32	NE. corner Twenty-fourth and I streets NW. *h*			3				
33	SE. corner Twenty-fourth and I streets NW. *i*			12				
34	NW. corner New Hampshire avenue and I street NW. *j*			6				
2	H street, between Fifteenth street and Vermont avenue.		39					
7	NE. corner Connecticut avenue and Q street NW. *k*							
8	East side Connecticut avenue between Q and R streets NW. *l*		15					
9	North side R street, between Twentieth street and Connecticut avenue. *m*		21					
11	NE. corner Eighteenth and M streets NW			36				
17	Capitol Grounds, near First street, between East Capitol and B streets SE.		15					
23	F street, between Nineteenth and Twenty-first streets, and L, between Twelfth and Fourteenth streets. *n*							

a Includes $3, cost of tap of water main.
b Repairing flushing basin.
c Includes $251.13 paid out of appropriation "Suburban sewers."
d Cost of materials and labor furnished by C. A. Schneider's Sons in erecting girder to support water main at M street bridge, and removing temporary bridge.
e Boarding over sewer.
f Boards used in this work were taken from works on Fifteenth street, between Pennsylvania avenue and F street, and on F street, between Fourteenth and Fifteenth streets.

ppriations, fiscal year 1897—Continued.

ONNECTIONS.

hes.	4-inch lead pipe.	Solder.	Flushing basins.	Cost of materials.	Cost of labor.	Cost of repairs to pavements.	Total cost.
	Feet.	*Pounds.*					
.....	61	3	1	*a* $67.99	$79.44	.....	$147.43
.....	4	1.5	1	*a* 60.38	97.83	$18.37	176.58
.....	33.5	2	1	*a* 56.38	55.23	.....	111.61
1	5.5	1.5	1	*a* 58.73	76.28	.....	135.01
2	27	2	1	*a* 59.31	54.12	8.36	121.79
.....	3.5	1.5	1	*a* 52.56	57.95	.....	110.51
.....	12.5	2	1	*a* 54.00	57.48	.....	111.48
.....	6	1.5	1	*a* 57.07	59.24	8.63	124.94
.....	.....	.....	.....	33.26	35.11	.....	*b* 68.37
3	153	15	8	499.68	572.68	35.36	1,107.72

EAR 1897, WORK PERFORMED BY DAY LABOR.

r	2.75 by 4.125, brick.	Manholes.	Basins.	Branches.	Cost of materials.	Cost of labor.	Cost of repairs to pavements.	Total cost.	Appropriations.
..	.....	1	....	1	$187.86	$527.83	.....	$715.69	Brookland sewer, 1897.
..	.....	....	....	2	228.40	*c* 544.13	.....	772.53	Do.
..	.....	1	....	5	218.25	538.75	.....	757.00	Do.
..	84.2	1	....	....	158.49	640.72	.....	799.21	Kenesaw avenue sewer, 1897.
..	.....	1	....	....	713.00	578.70	*d* $319.65	1,611.35	Rock Creek and B street intersecting sewer, 1897.
0	.....	1	....	....	208.97	760.49	.....	969.46	Do.
..	.....	....	....	....	9.05	51.73	.....	60.78	Do.
..	.....	3	....	15	166.77	514.95	.....	681.72	Fifteenth street extended, between Columbia road and Kenesaw avenue, 1897.
..	.....	....	....	....	172.84	99.50	.....	*e* 272.34	Fifteenth and F streets, portion Easby's point intersecting sewer, 1897.
..	.....	....	....	....	153.09	102.98	.....	*e* 256.07	Do.
..	.....	....	....	....	3.50	204.59	.....	*e f* 208.09	Do.
..	.....	....	2	....	28.22	70.72	.....	98.94	Improvement and repairs, NW. section, 1897.
..	.....	....	1	....	33.82	31.37	.....	65.19	Do.
..	.....	....	1	....	33.12	31.63	.....	64.75	Do.
..	.....	....	1	....	34.29	36.65	.....	70.94	Do.
..	.....	....	....	....	12.09	22.51	.....	34.60	Do.
..	.....	....	1	....	13.52	31.00	.....	44.52	Do.
..	.....	....	1	....	15.58	33.50	.....	49.08	Do.
..	.....	....	1	....	12.50	32.11	.....	44.61	Do.
..	.....	2	3	....	73.04	126.97	.....	200.01	Repairs, concrete pavements, 1897.
..	.....	....	....	....	11.15	39.39	.....	50.54	Do.
..	.....	....	....	....	14.86	45.62	.....	60.48	Do.
..	.....	....	....	....	16.17	51.05	.....	67.22	Do.
..	.....	....	1	....	28.60	48.43	.....	77.03	Do.
..	.....	....	1	....	19.76	29.81	.....	49.57	Do.
..	.....	....	....	....	3.29	15.06	.....	18.35	Do.

g Reconstructing basin.
h In connection with job No. 139, M. and P.
i In connection with job No. 140, M. and P.
j In connection with job No. 145, M. and P.
k Reconstructing basin in connection with job No. 56, M. and P.
l Reconstructing basin in connection with job No. 55, M. and P.
m Reconstructing basin in connection with job No. 57, M. and P.
n Adjusting manholes.

Work done by day labor under various sewe

TABLE 9.—MISCELLANEOUS APPROPRIATIONS IN FISCAL

No. of order.	Location.	Pipe sewers laid (length in feet).						
		8-inch.	10-inch.	12-inch.	15-inch.	18-inch.	21-inch.	24-inch.
6	NW. corner Ninth and B streets NW. *a*	.....	.....	15	.....	.....	.....	.....
10	SE. corner M street and entrance to Aqueduct Bridge.	.....	.....	42	.....	.....	.....	.....
13	Thirteenth street, between East Capitol and D streets SE. *b*	.....	.....	.....	.....	.....	.....	.....
20	NE. corner Eighth and I streets SE. *c*	.....	.....	21	.....	.....	.....	.....
21	NE. corner Ninth and I streets SE. *d*	.....	9	.....	.....	.....	.....	.....
22	....do. *e*	.....	33	.....	.....	.....	.....	.....
25	NE. corner Seventh and L streets SE. *f*	.....	.....	3	.....	.....	.....	.....
27	In front of No. 505 L street SE. *g*	.....	.....	.....	.....	.....	.....	.....
28	In front of No. 513 L street SE. *g*	.....	.....	.....	.....	.....	.....	.....
29	In front of No. 511 L street SE. *h*	.....	.....	.....	.....	.....	.....	.....
30	In front of No. 509 L street SE. *h*	.....	.....	.....	.....	.....	.....	.....
15	North side M street, at Florida avenue NE. *i*	.....	.....	30	.....	.....	.....	.....
16	North side P street, at Florida avenue NE.	.....	.....	30	.....	.....	.....	.....
19	SE. corner Eighth and D streets NE.	.....	.....	12	.....	.....	.....	.....
36	SE. corner Third and F streets NE. *j*	.....	.....	3	.....	.....	.....	.....
24	Thirteenth and Harvard streets NW. *k*	.....	.....	15	.....	.....	.....	.....
24	Thirteenth and Harvard streets NW. *l*	.....	.....	.....	.....	.....	.....	.....
31	Near SW. corner Thirteenth and Princeton *m*	.....	.....	3	.....	.....	.....	.....
37	Thirteenth street, between Princeton and Columbia streets. *n*	.....	.....	.....	.....	.....	.....	.....
38	Connecting lot 24, block 34, Columbia Heights, with sewer.	.....	51	.....	.....	.....	.....	.....
39	SE. corner Pennsylvania avenue and Ninth street NW. *o*	.....	.....	.....	15	.....	.....	.....
35	SW. corner M and Thirty-first streets NW. *p*	.....	.....	3	.....	.....	.....	.....
26	Sixth street, crossing L street, SE. *q*	.....	.....	.....	.....	.....	.....	.....
	Pennsylvania avenue, between First and Seventeenth streets NW. *s*	.....	.....	.....	.....	.....	.....	.....
	Total	45	768	264	15	454	305	301

a In connection with job No. 86, M. and P.
b Adjusting manholes.
c Reconstructing basin in connection with job No. 73, M. and P.
d Reconstructing basin in connection with job No. 74, M. and P.
e Reconstructing basin in connection with job No. 72, M. and P.
f Reconstructing basin in connection with job No. 130, M. and P.
g 17 linear feet 4 inches C. I. connections laid.
h 16.5 linear feet 4 inches C. I. connections laid.
i In connection with job No. 68, M. and P.
j In connection with job No. 147, M. and P.

)propriations, fiscal year 1897—Continued.

EAR 1897, WORK PERFORMED BY DAY LABOR—Continued.

50 by 3.75, brick.	2.75 by 4.125, brick.	Manholes.	Basins.	Branches.	Cost of materials.	Cost of labor.	Cost of repairs to pavements.	Total cost.	Appropriations.
.....	.....	....	1	....	$17.52	$40.61	.....	$58.13	Current repairs, streets, avenues, and alleys, 1897.
.....	.....	....	1	....	21.65	56.74	.....	78.39	Improvement and repairs, Georgetown section, 1897.
.....	.....	....	....	....	6.46	21.87	.....	28.33	Improvement and repairs, SE. section, 1897.
.....	.....	....	....	....	16.98	43.37	.....	60.35	Do.
.....	.....	....	....	....	13.89	37.97	.....	51.86	Do.
.....	.....	....	....	....	18.79	42.06	.....	60.85	Do.
.....	.....	....	....	....	12.13	27.64	.....	39.77	Do.
.....	.....	....	1	....	4.28	7.68	.....	11.96	Do.
.....	.....	....	1	....	4.05	7.50	.....	11.55	Do.
.....	.....	....	1	....	3.98	6.67	.....	10.65	Do.
.....	.....	....	1	....	3.98	6.71	.....	10.69	Do.
.....	.....	....	1	....	20.31	43.12	.....	63.43	Improvement and repairs, northeast section, 1897.
.....	.....	....	1	....	19.75	32.87	.....	52.62	Do.
.....	.....	....	1	....	13.85	33.92	.....	47.77	Do.
.....	.....	....	1	....	12.46	26.86	$0.77	40.09	Do.
.....	.....	....	....	....	29.34	72.19	.....	101.53	Yale street, 1897.
.....	.....	....	....	....	6.91	14.96	.....	21.87	Do.
.....	.....	....	....	....	9.94	22.93	.....	32.87	Do.
.....	.....	....	....	....	2.41	2.69	.....	5.10	Do.
.....	.....	....	....	....	11.09	61.55	.....	72.64	Repairs county roads, 1897.
.....	.....	....	1	....	17.21	45.69	.....	62.90	Replacing sidewalks and curbs around public reservations, 1897.
.....	.....	....	....	....	11.86	24.87	.....	36.73	Improvement and repairs, Georgetown section, 1897
.....	.....	....	....	....	259.64	811.39	*r* 16.06	1,087.09	Cleaning and repairing sewers and basins, 1897.
.....	.....	....	....	....	211.89	396.79	.....	608.68	Preservation of public order, February and March, 1897.
70	84.2	10	24	23	3,320.60	7,098.84	336.48	10,755.92	

k Reconstructing basins southwest and northwest corners.
l Adjusting basins northeast and southeast corners.
m Adjusting basin; awaiting bill for repairs to pavements.
n Raising manholes to grade.
o In connection with job No. 153, M. and P.; awaiting bill for repairs to pavements.
p Reconstructing basin in connection with job No. 151, M. and P.
q Repairing 4 foot 3 inch sewer in Sixth street SE.
r Cost of moving water main.
s Roping of Pennsylvania avenue, cost of materials estimated.

TABLE 10.—*Sewers constructed under various contracts, chargeable to various sewe*

No. of contract.	Contractor.	Location.	Size of sewer.	Length.
		Fifteenth street, between B and C streets NE.		
		Fifteenth street crossing, B street NE.		*Feet.*
		B street, between Fifteenth street and North Carolina avenue NE.	2.75 by 4.125 feet	524.34
			2.25 by 3.375 feet	56.1
2225	A. C. Chenoweth		2 by 3 feet	365.85
		North Carolina avenue, between B and Fourteenth streets NE.	2.25 by 3.375 feet	799.5
			Bell section	8
		Fifteenth street, between A and B streets NE.		
		Fifteenth and B streets NE		
		Georgia avenue, between Sixteenth and Seventeenth streets SE.	3.5 by 5.25 feet	660
			3.25 by 4.875 feet	459.25
2232	H. C. Bolden	Seventeenth street, between Georgia avenue and E street SE.	2.75 by 4.125 feet	454.75
			2.25 by 3.375 feet	241.3
2238	Jas. McCandlish	I street SW., between Delaware avenue and James Creek Canal.	5.25 feet diameter	579.2
2231	Lyons Bros	Fifteenth street extended, between Kenesaw avenue and Grant street.	2.50 by 3.75 feet	571.65
2214	Andrew Gleeson	Kenesaw avenue, between Rock Creek and Sixteenth street.	2.75 by 4.125 feet	2,306.6
		Fifth street NE., between T street and Rhode Island avenue.	Bell section	20
			8 feet diameter	1,087.6
		Rhode Island avenue, between Fifth and Ninth streets NE.	6 feet 6 inches diameter.	1,108.6
			5 feet 9 inches diameter.	800.7
		Rhode Island avenue and Albany street, between Fourth and Fifth streets.	6 feet 6 inches diameter.	420.75
		Ninth street, between Rhode Island avenue and Franklin street.	Transition section	16
			5 feet 9 inches diameter.	1,198.1
		Ninth street, between Franklin and Hartford streets.	4 by 6 feet	675.9
2217	T. M. Lesher & Son	Ninth street, between Hartford and Indianapolis streets.	3.75 by 5.625 feet	360.8
		Ninth street, between Indianapolis and Joliet streets.	3.50 by 5.25 feet	360.8
		Ninth street, between Joliet and Frankfort streets.	Bell section	8
			3.25 by 4.875 feet	300.85
		Ninth street, between Frankfort and Lansing streets.	3 by 4.50 feet	796
		Ninth street, between Lansing and Providence streets.	24-inch pipe	356
		Eighth street, between Keokuk and Lowell streets.	2.25 by 3.375 feet	280.8
		Keokuk street, between Eighth and Ninth streets.	2.50 by 3.75 feet	407.5
		Dover street, between Ninth and Tenth streets.	2.50 by 3.75 feet	377.5
			6 feet diameter	5,558
			Bell connection	24
			18-inch	293.2
			15-inch	931.1
2220	Jno. Jacoby		30-inch brick	39.4
			24-inch C. I. pipe	704.2
			30-inch C. I. pipe	150
			Wrought-iron truss bridge	1
			2.75 by 4.125 feet	8,609.4
			Bell section	18
2050	Jas. McCandlish	Rock Creek Valley, between Woodley Road and Piney Branch.	Sediment chamber	60
			Overflow section	20
			3-foot section	24
			30-inch C. I. pipe	512
2233	Jno. Jacoby	Slash Run sewer, between New Hampshire avenue and N street.	10 feet diameter	92.8

a This report includes work accounted for in annual report of the fiscal year 1896.
b Work incomplete: payment made on account.
c Includes $91.76, cost of repairing water-service pipes, and $77.07, cost of raising railroa tracks at M street bridge.

appropriations for the fiscal years 1895 and 1896, completed in fiscal year 1897.

Contract price per foot.	Allowance to contractor.	Materials furnished.		Cost of inspection.	Cost of repairs to pavements.	Total cost.	Appropriation.
		Chargeable.	Not chargeable.				
$3.98 3.59 3.23 3.71	$3,838.03	$2,455.87	$33.74	$1,749.00	.....	a $8,076.64	Main and pipe sewers, 1896.
.....	6,075.57	2,709.69	25.85	432.00	.....	9,243.11	Do.
.....	3,094.03	822.12	10.22	234.00	$35.35	4,195.72	Do.
4.54	2,016.88	789.70	5.76	121.50	.....	2,933.84	Suburban sewers, 1896.
4.19	8,753.35	3,238.50	31.93	813.07	.....	a 12,836.85	Kenesaw avenue sewer, 1896 and 1897.
.....	53,218.20	15,629.18	327.84	2,943.66	.....	a 72,118.88	Brookland sewer, 1896 and 1897.
.....	a b77,713.24	.....	.....	4,527.35	c 417.79	.....	Rock Creek and B street intersecting sewer.
.....	47,231.92	11,355.15	371.46	4,475.75	d 24.50	e 63,458.78	Rock Creek intersecting sewer.
.....	537.75	225.40	.....	52.00	.....	f 815.15	Cleaning and repairing sewers and basins, 1896.

d Cost of rolling roadway over sewer.
e This report includes work accounted for in annual reports of the fiscal years 1895 and 1896.
f Repairing bottom of sewer.

TABLE 11.—*Number of inspectors, foremen, and other employees of the sewer and property divisions and engineers' stables temporarily required, and appropriations from which paid, for the year ended June 30, 1897.*

Class.	Number employed.	Cleaning and repairing sewers and basins.	Replacing obstructed sewers.	Main and pipe.	Suburban sewers.	Fifteenth and F streets sewers.	Rock Creek and B street intercepter.
Foremen	12	$5,091.67	$944.50	$1,339.00	$845.50	$30.00	$135.50
Inspectors	18	243.00	36.00	2,121.00	1,366.50	1,451.11	2,642.00
Other employees	457	29,198.13	14,816.01	22,313.98	11,283.11	1,109.08	3,793.86
Total	487	34,532 80	15,796,51	25,773.98	13,295.11	2,590.19	6,571.36

Class.	Rock Creek intercepter.	Brookland sewer.	Kenesaw avenue sewer.	Fifteenth street extended, between Columbia road and Kenesaw avenue.	Eckington valley sewer.	Repairs, concrete pavements.	Improvements and repairs, Georgetown.
Foremen	.....	$126.00	$48.00	$32.00	.....	$30.00	$10.00
Inspectors	$176.00	1,477.00	.....	.....	.....	.....	4.00
Other employees	.....	4,285.04	637.98	482.95	$270.00	326.33	67.61
Total	176.00	5,888.04	685.98	514.95	270.00	356.33	81.61

Class.	Improvements and repairs northwest section.	Improvements and repairs northeast section.	Improvements and repairs southeast section.	Current repairs streets, avenues, and alleys.	Yale street, etc.	Retain, contract No. 2214.	Emergency fund.
Foremen	$21.00	$12.00	$16.00	$4.00	$9.00	$4.50	$8.50
Inspectors	15.00	4.00	9.00	.....	8.00	.....	.....
Other employees	253.49	120.77	176.47	36.61	95.77	13.55	43.44
Total	289.49	136.77	201.47	40.61	112.77	18.05	51.94

Class.	Automatic siphons.	Preservation of public order, February and March.	Repairs to county roads.	Replacing sidewalks and curbs around public reservations.	Assessment and permit work.	Deposits.	Grand total.
Foremen	.....	$53.25	.....	$8.00	$1,932.00	$45.00	$10,545.42
Inspectors	$119.00	.....	.....	.....	111.00	.....	9,782.61
Other employees	453.68	343.54	$61.55	37.69	30,688.68	491.40	121,400.72
Total	572.68	396.79	61.55	45.69	32,731.68	536.40	141,728.75

TABLE 11.—*Number of inspectors, foremen, and other employees of the sewer and property divisions and engineers' stables temporarily required, and appropriations from which paid, for the year ended June 30, 1897.*

Class.	Number employed.	Cleaning and repairing sewers and basins.	Replacing obstructed sewers.	Main and pipe.	Suburban sewers.	Fifteenth and F streets sewers.	Rock Creek and B street intercepter.
Foremen	12	$5,091.67	$944.50	$1,339.00	$645.50	$30.00	$135.50
Inspectors	18	243.00	36.00	2,121.00	1,366.50	1,451.11	2,642.00
Other employees	457	29,198.13	14,816.01	22,313.98	11,283.11	1,109.08	3,793.86
Total	487	34,532 80	15,796,51	25,773.98	13,295.11	2,590.19	6,571.36

Class.	Rock Creek intercepter.	Brookland sewer.	Kenesaw avenue sewer.	Fifteenth street extended, between Columbia road and Kenesaw avenue.	Eckington valley sewer.	Repairs, concrete pavements.	Improvements and repairs, Georgetown.
Foremen	.....	$126.00	$48.00	$32.00	.....	$30.00	$10.00
Inspectors	$176.00	1,477.00	.....	.....	.....	.....	4.00
Other employees	.....	4,285.04	637.98	482.95	$270.00	326.33	67.61
Total	176.00	5,888.04	685.98	514.95	270.00	356.33	81.61

Class.	Improvements and repairs northwest section.	Improvements and repairs northeast section.	Improvements and repairs southeast section.	Current repairs streets, avenues, and alleys.	Yale street, etc.	Retain, contract No. 2214.	Emergency fund.
Foremen	$21.00	$12.00	$16.00	$4.00	$9.00	$4.50	$8.50
Inspectors	15.00	4.00	9.00	.....	8.00	.....	.....
Other employees	253.49	120.77	176.47	36.61	95.77	13.55	43.44
Total	289.49	136.77	201.47	40.61	112.77	18.05	51.94

Class.	Automatic siphons.	Preservation of public order, February and March.	Repairs to county roads.	Replacing sidewalks and curbs around public reservations.	Assessment and permit work.	Deposits.	Grand total.
Foremen	.....	$53.25	.....	$8.00	$1,932.00	$45.00	$10,545.42
Inspectors	$119.00	.....	.....	.....	111.00	.....	9,782.61
Other employees	453.68	343.54	$61.55	37.69	30,688.68	491.40	121,400.72
Total	572.68	396.79	61.55	45.69	32,731.68	536.40	141,728.75

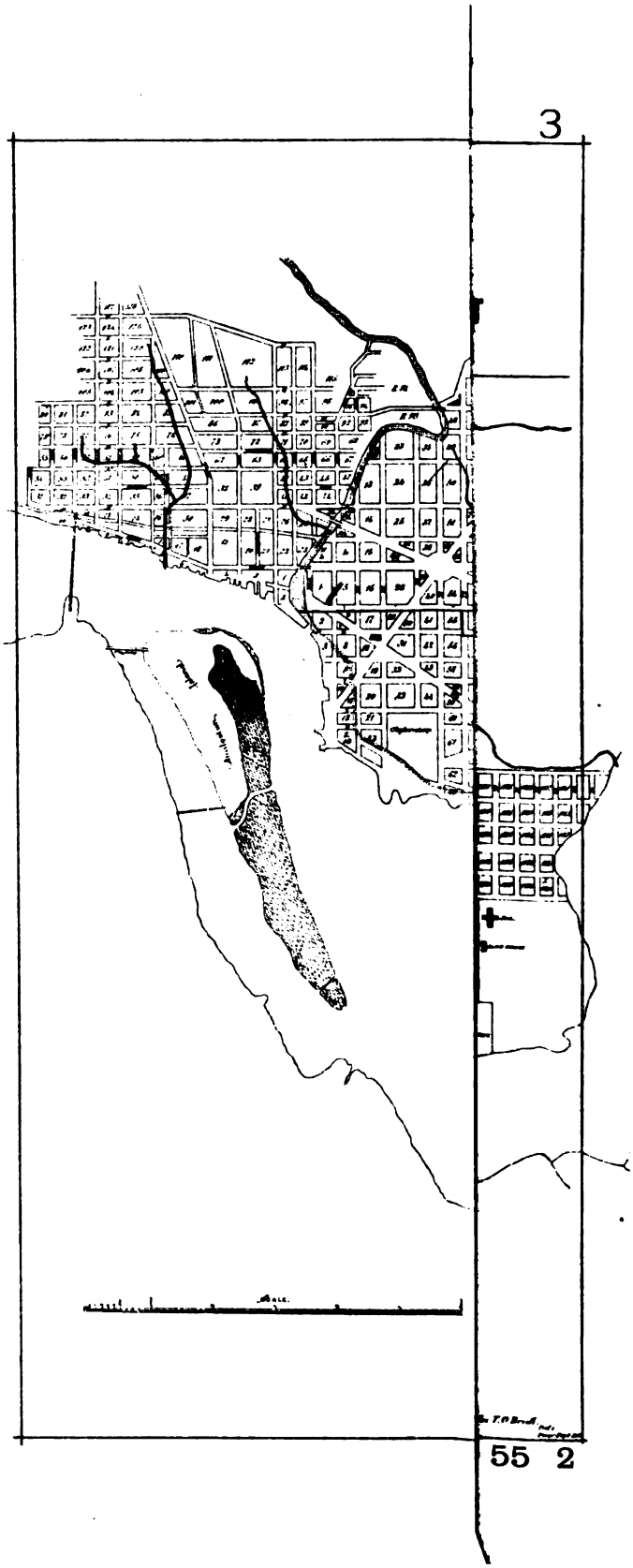

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TABLE 12.—*Average cost per linear foot of sewers constructed by day-labor fiscal year 1897.*

Size.	Length in feet.	Cost of materials.	Cost of labor.	Total cost.
8-inch	1,120	$0.284—	$0.776+	$1.04
	1,120	.263+	.775+	1.038
10-inch	12,265	.32+	.847—	1.167
	12,147	.318+	.834—	1.152
12-inch	24,821	.356—	.908+	1.264
	24,261	.353+	.889—	1.242
15-inch	6,753	.445—	1.115—	1.56
	6,114	.446+	1.033+	1.479
18-inch	5,700	.53+	1.243+	1.773
	5,427	.522+	1.199—	1.721
21-inch	4,336	.698—	1.583—	2.281
	3,575	.666+	1.497+	2.163
24-inch	1,266	.788—	1.83+	2.618
	1,266	.785—	1.827—	2.612
8-inch connection	27	.263+	.775+	1.038
10-inch connection	540	.318+	.834—	1.152
12-inch connection	1,020	.353+	.889—	1.242
15-inch connection	96	.446+	1.033+	1.479
18-inch connection	300	.522+	1.199—	1.721
21-inch connection	51	.666+	1.497+	2.163
24-inch connection	108	.785—	1.827—	2 612
Total		19 984—	25.565—	45.549

Basins constructed, 85.

NOTE.—Figures in black show average cost per linear foot with jobs of exceptional difficulty omitted.

SEWERS OF WASHINGTON.

The first action materially affecting the drainage of the city was the construction of the Washington Canal from the Potomac River at the foot of Seventeenth street W. to the Anacostia River at the foot of Second street E., authorized by act of Congress of May 1, 1802. This canal was purchased by the city under authority of an act approved January 3, 1831, and was used for commercial purposes until it was filled, between the years 1871 and 1880. The sewers constructed by the city prior to 1871 emptied into the canal, and as it occupied, through the greater part of its course, a natural valley line, it became the trunk drain for the central section of the city. After the introduction of the Potomac water supply, in the year 1859, the demand for and the construction of sewers increased, and it was not long before complaints were made of the nuisance caused by the foul materials brought by these sewers to the canal. In the year 1871 the filling of the canal was determined upon, and it was accomplished between the years 1871 and 1880. When the canal was filled its place as a drain and filth carrier was taken by the B street and Tiber sewers, emptying, respectively, into the Potomac and the Anacostia rivers. The sewers first constructed were designed to carry storm water, subsoil water, and liquid sewage, the discharge of solids into the sewers being prohibited by statute, and it was not until the act of the legislative assembly of August 21, 1871, that the discharge of solids into sewers was permitted, although in point of fact water-closets with direct sewer connections were in use for many years prior to the passage of this act. By an act of the legislative assembly of June 26, 1873, the cities of Georgetown and Washington were divided into sewerage and drainage sections, and under the direction of the board of public works the construction of the sewerage and drainage systems therein outlined and provided for was undertaken, and a considerable portion of the same was completed when the board of public works was abolished in 1874.

Under the form of government by commissioners the systems of sewers commenced by the board of public works was extended, and many of the main sewers were relieved by intercepting systems, the most important being the northeast boundary, the northwest boundary, the Q street and the New York avenue systems.

In the history of the sewers of Washington the first period may be considered as ending June 1, 1871, when the charters of Washington, Georgetown, and the levy court of Washington County were abolished by Congress.

The first appropriation for sewer construction was made by the city government October 20, 1810, when $120 was appropriated for "erecting an arch on the south side of Pennsylvania avenue between Ninth and Tenth streets." Under this and

subsequent appropriations (eighteen in number) for culverts and arches was constructed the main drain extending from Tiber Creek, between Ninth and Tenth streets, to G street, thence to the intersection of Grant place and Tenth street, thence to the intersection of H and Eleventh streets. This sewer is still in service from B street sewer to C street, and from D street to Grant place. It is proposed to replace it between these limits by pipe sewers located within the lines of public streets and alleys.

Tiber sewer.—August 13, 1817, an act was passed by the city legislature "to build brick arch bridge over the Tiber at Pennsylvania avenue." This act was repealed October 9, 1817. June 30, 1834, an appropriation of $1,200 was made by Congress to repair the north end of the Tiber arch across Pennsylvania avenue. November 26, 1840, an act of the city legislature authorized the repair of the bridge at Pennsylvania avenue and Second street W. August 26, 1842, an appropriation of $12,000 was made by Congress to "rebuild bridge over the Tiber crossing Pennsylvania avenue." August 12, 1848, the construction of a culvert across Indiana avenue was authorized by act of Congress. November 27, 1855, an act passed by the city legislature urged Congress to continue the arching of Tiber Creek from Pennsylvania avenue to C street N. October 18, 1856, appropriation of $6,000 was made by Congress to "complete culvert across Tiber Creek on Indiana avenue." Appropriations aggregating $53,150 were made by Congress to "change Tiber Creek through the Botanic Garden into a sewer," as follows: July 2, 1864, July 28, 1866, March 2, 1867, July 20, 1868. Under contract No. 122, made by the Board of Public Works, the section of Tiber sewer between the south side of Maryland avenue and the Botanic Garden, and the section between the north side of Pennsylvania avenue and E street N. were constructed. Under contract No. 1012, made by the Board of Public Works, the section of Tiber sewer between the south side of Maryland avenue and the south side of G street S. was constructed, thereby completing the sewer. A rainstorm on August 5, 1878, so overcharged the sewer that a section in the Botanic Garden 400 feet in length was ruptured. The injury was repaired by the Commissioners of the District of Columbia under contracts Nos. 106 and 176. In the year 1893 a set of swinging tide gates was placed at the outlet for the purpose of impounding the tidal prism of water and releasing the same at low-water stage. These gates are operated by manual power and their use has somewhat improved the conditions in the sewer and in James Creek Canal.

Judiciary Square sewer.—July 26, 1832, an act of the city legislature authorized the construction of an arch at Third and D streets NW. July 2, 1837, August 21, 1839, May 9, 1844, August 5, 1844, acts of the city legislature authorizing the repair and extension of the arch at Third and D streets NW. November 8, 1847, an act of the city legislature authorized the construction of brick arch over water course on Second street W., between C and D streets N. April 5, 1849, act of the city legislature authorized the extension of culvert across Fourth street W., between E and G streets N. April 12, 1850, act of the city legislature authorized the extension of culvert at D and Third streets NW. to the south line of D street. October 3, 1851, act of the city legislature authorized the extension of culvert to west line of square No. 532. March 19, 1852, act of city legislature authorized the rebuilding of culvert on east front of square No. 532. August 16, 1853, act of the city legislature authorized the construction of culvert across square No. 532. May 16, 1857, act of the city legislature authorized the completion of culvert across square No. 532. August 12, 1848, act of Congress authorized the construction of culvert in Louisiana avenue. August 18, 1856, act of Congress authorized the construction of culvert in Louisiana avenue. March 15, 1856, act of Congress authorized the construction of sewer across Judiciary Square.

The trunk sewers in Georgetown were constructed under various acts of the legislature of Georgetown for arching over the natural water courses which they followed. These have been reconstructed by the Commissioners.

I transmit a list of sewers constructed by the corporations of Washington and Georgetown with sewer map; also a list of sewers constructed since the consolidation of these corporations in 1871.

INDEX OF SEWERS OF DISTRICT OF COLUMBIA.

[Abbreviations: C. W., acts of corporation of Washington; B. P. W., contracts with Board of Public Works; B. P. W. & C., contracts with Board of Public Works extended by Commissioners; Commrs., contract with Commissioners of the District of Columbia; d. l., day-labor. Where the letter X appears after a contract number it indicates that the work was done under an extension of the contract.]

One-half street E.

M to N street S., both sides, d. l., 1894.
N street S., crossing, d. l., 1889.

One-half street W.

F to G street S., No. 589 (Commrs.).
G street S. (basin), No. 957 (Commrs.).
M to N street S., d. l., 1895.

First street E.

Pennsylvania ave. to D st. S., No. 88 (B. P. W.).
F street to Virginia avenue S., No. 414 (B. P. W.).
B to C street N., No. 498 (B. P. W.).
D street N. (2 basins), No. 712 (B. P. W.).
D to F street S., No. 795 (B. P. W.).
L to N street N., No. 836 (B. P. W.).
B street N. to B street S., No. 944 (B. P. W.).
C to F street N., No. 1047 (B. P. W.).
F to Chicago street N., No. 51 (Commrs.).
C to D street S., No. 103 (Commrs.).
B to C street S., No. 590 (Commrs.).
E street S. (basin), No. 728 (Commrs.).
H to I street N., No. 730 (Commrs.).
I to L street N., No. 954 (Commrs.).
C to D street N., No. 954 (Commrs.).
D street N. (basin), No. 1183 (Commrs.).
B street to Maryland avenue S., No. 1195 (Commrs.).
D street to North Carolina avenue S., No. 1287 (Commrs.).
O street N. (basins), No. 1473 (Commrs.).
E to G street S., No. 1896 (Commrs.).
East Capitol to A street N., east side, d. l., 1877.
A to B street N., d. l., 1879.
Maryland avenue to B street N., d. l., 1880.
L street N. (basin), d. l., 1885.
East Capitol to Carroll street S., d. l., 1887.
East Capitol to A street N., d. l., 1887.
A to B street S., d. l., 1887.
I street E. (basin), d. l., 1890.
K street E. (basin), d. l., 1890.
Carroll street S., d. l., 1890.
B to C street N., d. l., 1890, Repl.
D st. to North Carolina ave. S., d. l., 1892, Repl.
Quincy crossing N., d. l., 1892, Repl.
E street to Virginia avenue S., d. l., 1892, Repl.
N to O street S., d. l., 1894.
B to C street N. (siphon), d. l., 1894.
L to M street S., d. l., 1894.
North Carolina avenue (basins), NE. corner, d. l., 1895.
I to K street N., d. l., 1896.
E street S. (basin), SE. corner, d. l., 1896.
North Carolina avenue (basin), NW. corner, d. l., 1896.
I to K street S., d. l., 1897.
M to N street S., d. l., 1897.
Heckman street (basin), SE. corner, d. l., 1897.
East Capitol to B street S. (basin), d. l., 1897.

First street W.

G to I street N., No. 100 (B. P. W.).
Massachusetts ave. to K st. N., No. 384 (B. P. W.).
F to G street N., No. 671 (B. P. W.).
Maryland avenue to B st. S., No. 720 (B. P. W.).
O street to Boundary N., No. 754 (B. P. W. & C.).
G to H street N., No. 821 (B. P. W.).
O street to Boundary N., No. 831 (B. P. W.).
E to G street S., No. 589 (Commrs.).
F to G street S., No. 593 (Commrs.).
M to Pierce street N., No. 631 (Commrs.).
B street S. (basin), No. 728 (Commrs.).
E street S. (basin), No. 728 (Commrs.).
D to E street S., No. 730 (Commrs.).
E to Canal street S., No. 954 (Commrs.).
Florida avenue to S st. N., No. 957 (Commrs.).
Pierce street (basin), No. 1171 (Commrs.).
S to U street N., No. 1171 (Commrs.).
L to Pierce street N., No. 1195 (Commrs.).
Florida avenue N. (basins), No. 1256 (Commrs.).
R street N. (basin), No. 1256 (Commrs.).
N street to New York avenue N., No. 1468 (Commrs.).
N street S. (basin), No. 1473 (Commrs.).
I street S. (basin), No. 1473 (Commrs.).
K street S. (basins), No. 1473 (Commrs.).
T street N. (basin), No. 1473 (Commrs.).
S street N. (basin), No. 1473 (Commrs.).
N to O street N., No. 1566 (Commrs.).
T street to Rhode Island avenue N., No. 1749 (Commrs.).
V to W street N., No. 1868 (Commrs.).
B to C street S., east side, d. l., 1884.
I to K street N., east side, d. l., 1884.
B to Canal street (basin), d. l., 1885.
K to L street N., d. l., 1885.
G street N. (basin), d. l., 1888.
C street S., d. l., 1889.
D street S., d. l., 1889.
K to L street N., d. l., 1889.
B to C street S. (basins), d. l., 1890.
G to H street S., d. l., 1890.
D street S. (basin), d. l., 1891.
Florida avenue to R street N., d. l., 1891.
B to C street N., d. l., 1891.
I street N. (basin), d. l., 1892.
D to E street N.,[1] d. l., 1892, Repl.
R to Randolph street N., d. l., 1892.
Maryland avenue S., d. l., 1892.
M to N street S., d. l., 1894.
K to L street S., d. l., 1894.
L street S. (basin), d. l., 1894.
L to M street S., d. l., 1894.
M street N., d. l., 1894.
W street N. (basins), d. l., 1894.
B to Canal street S., d. l., 1894, Repl.
I to K street N., d. l., 1894.
Indiana avenue to B street N., d. l., 1894.
N to O street S., d. l., 1895.
O street S. (basin), d. l., 1895.
Seaton street N. (basin), d. l., 1895.
Rhode Island avenue (basin), d. l., 1895.
U street N., d. l., 1895.
K to L street N., d. l., 1895.
K street S., crossing, d. l., 1896.
V street N. (basin), NW. corner, d. l., 1896.
U street N. (basin), NW. corner, d. l., 1896.
V street N. (basin), NE. corner, d. l., 1896.
I to K street S., d. l., 1896.
O to P street S., d. l., 1897.
V to W street N., d. l., 1897.
O to P street N., d. l., 1897.

Second street E.

D street S., extend west end of culvert under Second street at, August 21, 1858 (C. W.).
East Capitol to A st. N., construct 2½-foot barrel sewer from alley in square No. 760 to connect with sewer in A st., October 15, 1869 (C. W.).
A street to Maryland avenue N., east side, No. 811 (B. P. W.).
A street to Maryland avenue N., west side, verbal order, 1876 (Commrs.).
C st. to Maryland ave. N., No. 1023 (B. P. W.).
C to D street N., No. 243 (B. P. W.).
B to C street N., west side, No. 83 (B. P. W.).
Pennsylvania ave. to D st. S., No. 208 (B. P. W.).
East Capitol street to Pennsylvania avenue, No. 413 (B. P. W.).
East Capitol to A street S., No. 653 (B. P. W.).
F to I street N., No. 702 (B. P. W. & C.).
A to B street S., No. 934 (B. P. W.).
Massachusetts ave. to F st., No. 589 (Commrs.).

[1] Original sewer constructed under contract with B. P. W.

C street and Maryland avenue N., No. 557 (B. P. W.).
G to K street N., No. 702 (B. P. W. and C.).
East Capitol street to North Carolina avenue, No. 838 (B. P. W. and C.).
Pennsylvania avenue to E street S., No. 850 (B. P. W.).
Virginia avenue to M street S., No. 876 (B. P. W.).
Eastern Branch to M street S., No. 876 (B. P. W. and C.).
East Capitol to A street N., No. 589 (Commrs.).
North Carolina avenue S., No. 593 (Commrs.).
C street N. (basin), No. 728 (Commrs.).
G to H street N., No. 730 (Commrs.).
B street N. (basin), No. 957 (Commrs.).
D street N. (basins), No. 1171 (Commrs.).
F to G street N., No. 1715 (Commrs.).
B street S., crossing, No. 1728 (Commrs.).
Georgia avenue to Eastern Branch S., No. 2059 (Commrs.).
H street N. (basins), Dec. 17, 1877 (Commrs.).
I street N. (basins), Dec. 17, 1877 (Commrs.).
North Carolina and Pennsylvania avenue, north side, d. l., 1882.
A to B street N., east side, d. l., 1876.
B street to Massachusetts avenue N., d. l., 1889.
B street S., d. l., 1890.
M street S., d. l., 1890.
E to F street N., d. l., 1891.
B st. to North Carolina av. S., d. l., 1892, Repl.
C to D street N., d. l., 1892.
E street N., d. l., 1893.
F to G street N., d. l., 1893.
L to M street N., d. l., 1893.
A to B street N., d. l., 1893.
L street S., d. l., 1894.
A to B street N., d. l., 1894.
I to K street N., d. l., 1894.
L to M street N., d. l., 1894.
East Capitol to B street S., d. l., 1894, Repl.
D to E street N., d. l., 1895.
Pennsylvania ave. S., flushing basin, d. l., 1895.
East Capitol street, flushing basin, d. l., 1895.
Maryland avenue N., flushing basin, d. l., 1895.
F to G street N., d. l., 1896.
D st. to South Carolina ave. S., d. l., 1896, Repl.
G st. to South Carolina ave. S., d. l., 1896, Repl.
L to M street S., d. l., 1897.
E to F st. N., d. l., 1897.
L st. S. (basins), NW. and NE. cors., d. l., 1897.
L street S., crossing, d. l., 1897, Repl.

Fifth street W.

G to M street, May 27, 1867 (C. W.).
L to M street N., August 6, 1870 (C. W.).
D to E street N., No. 61 (B. P. W.).
E to G street N., No. 61 (B. P. W.).
D to G street N., No. 61 (B. P. W.).
O to P street N., No. 558 (B. P. W. and C.).
L to O street N., both sides, No. 644 (B. P. W.).
P to Q street N., No. 760 (B. P. W. and C.).
K to L street N., both sides. No. 913 (B. P. W.).
Q st. to Florida ave. N., No. 819 (B. P. W. and C.).
S st. to Rhode Island ave., No. 730 (Commrs.).
S street to Florida ave. N., No. 826 (Commrs.).
Ridge to O street N., No. 954 (Commrs.).
Newark to Omaha st. N., No. 2324 (Commrs.).
P to Q street N., west side, d. l., 1878.
P to Q street N., d. l., 1889.
E to F street N., d. l., 1889.
Q to R street N., d. l., 1891, Repl.
Florida avenue to Maple street, d. l., 1891.
S street N. (basin), d. l., 1894.
M to N street N., d. l., 1894, Repl.
R street to Rhode Island ave., d. l., 1894, Repl.
S street to Rhode Island ave. N., d. l., 1895, Repl.
N to O street N., d. l., 1896.
Philadelphia to Omaha street N., d. l., 1897.

Sixth street W.

G street to Massachusetts avenue N., August 16, 1853 (C. W.).
G street to I street N., September 9, 1857 (C. W.).
I to L street N., January 13, 1865 (C. W.).
Pennsylvania avenue, across at Sixth street W., August 15, 1812 (C. W.)
Pennsylvania avenue to Tiber, July 31, 1813 (C. W.).
Canal to south side of Louisiana avenue, March 23, 1854 (C. W.).
Louisiana avenue to G street N., November 19, 1860, January 17, 1863, May 29, 1863 (C. W.).
I to L st., deficiency, January 13, 1865 (C. W.).
L to M street, February 6, 1869 (C. W.).
G st. to Massachusetts ave. *See* Indiana ave.
Maine avenue to Potomac River S., No. 369 (B. P. W.).
M to P street N., No. 466 (B. P. W.).
L to Boundary street N., both sides, No. 641 (B. P. W.).
Maryland avenue to C st. S., No. 557 (B. P. W.).
P to Q street N., No. 760 (B. P. W. & C.).
Rhode Island to Florida ave., No. 835 (B. P. W.).
D to School street S., No. 884 (B. P. W.).
Rhode Island avenue to S street, No. 1058 (B. P. W. & C.).
C street S. (basin), No. 728 (Commrs.).
Rhode Island avenue N., No. 730 (Commrs.).
R to S street N., No. 730 (Commrs.).
C st. to Louisiana ave. N., No. 1270 (Commrs.).
Trumbull to Howard street N., No. 1195 (Commrs.).
R to S street N., No. 2008 (Commrs.)
G to H street S., replacing, No. 2082 (Commrs.).
S street to Florida avenue, east side, d. l., 1876.
Missouri to Maryland avenue S., d. l., 1878.
F to G street N., d. l., 1883.
Pennsylvania avenue (basin), d. l., 1885.
Q to R street N., d. l., 1887.
B street to Massachusetts avenue N., d. l., 1889.
E to F street S., d. l., 1890, Repl.
E to F street S., d. l., 1891, Repl.
O to P street N., d. l., 1891, Repl.
N to O street N., d. l. 1891.
K to L street N., d. l., 1892.
Missouri to Pennsylvania ave. (basin), d. l., 1894.
Trumbull street to Lincoln avenue, d. l., 1894.
Pomeroy, near (basin), d. l., 1894.
Q street N., d. l., 1894, Repl.
Howard avenue to College street, d. l., 1894.
N street N., automatic siphon, d. l., 1895.
L street S. (basin), d. l., 1896.
B street N. to Maryland avenue S., d. l., 1896.
Missouri avenue, south of (basins), d. l., 1896.
F to G street S., d. l., 1897, Repl.

Seventh street E.

Pennsylvania avenue to Eastern Market, No. 297½ (B. P. W.).
Virginia avenue to I street S., No. 484 (B. P. W.).
K to L street N., No. 702 (B. P. W. & C.).
East Capitol street to North Carolina avenue, No. 811 (B. P. W.).
East Capitol to G street N., No. 811 (B. P. W.).
D to I street S., No. 925 (B. P. W.).
G to I street S., No. 1045 (B. P. W.).
G to I street S., No. 1050 (B. P. W.).
D to I street S., No. 1072 (B. P. W.).
G to I street N., No. 1097 (B. P. W.).
G street to South Carolina avenue (basins), No. 79 (Commrs.).
East Capitol street to Maryland avenue N., No. 588 (Commrs.).
E st. to Maryland ave. N., No. 591 (Commrs.).
East Capitol st., crossing, No. 591 (Commrs.).
G street S. (basins), No. 728 (Commrs.).
D street to South Carolina avenue S., No. 730 (Commrs.).
C street to North Carolina avenue S., No. 836 (Commrs.).
H street N. (basin), No. 957 (Commrs.).
B to D street N. (basins), No. 976 (Commrs.).
G to I street S., No. 1202 (Commrs.).
L street S. (basin), No. 1256 (Commrs.).
L to M street N., No. 1566 (Commrs.).
L st. to Florida ave. N., No. 1716 (Commrs.).
E to G street S., No. 1796 (Commrs.).
D to E street S., No. 1797 (Commrs.).
F st. N., automatic siphon, No. 1913 (Commrs.).
B street to Massachusetts avenue N., d. l., 1883.
A st. N. to North Carolina ave. S., d. l., 1885.
G street S., crossing, d. l., 1889.
G to I street S. (basin), d. l., 1889.
H to I street N., d. l., 1889.
Virginia avenue to L street S., d. l., 1889.

H street N. (basin), d. l., 1890.
H to I street, d. l., 1890.
G to H street N., d. l., 1892.
L to M street N., d. l., 1893.
G to H street N., d. l., 1893.
A street S. (basin), d. l., 1894.
North Carolina ave. and C st. S., d. l., 1894.
D street N. (basin), d. l., 1894.
E to G street S., d. l., 1894, Repl.
East Capitol to A street S., d. l., 1894, Repl.
B street S., automatic siphon, d. l., 1894.
North Carolina ave. S., automatic siphon, 1894.
Virginia avenue to I street S., d. l., 1895.
H to I street N., d. l., 1895.
Virginia avenue to I street S., d. l., 1895, Repl.
I to K street N., d. l., 1895.
H to I street N., d. l., 1895.
K to L street S., d. l., 1896.
L street to Virginia avenue S., d. l., 1897.
Milwaukee st to Bunker Hill road N., d. l., 1897.
K to L street S., d. l., 1897.
L street S., d. l., 1897.
South Carolina avenue, automatic siphon, d. l., 1897.

Seventh street W.

Pennsylvania avenue, extend arch across, July 15, 1814 (C. W.).
H street, north of, December 28, 1854 (C. W.).
F street to Pennsylvania avenue, September 22, 1860 (C. W.).
H street to Massachusetts avenue, September 6, 1862 (C. W.). Change of location to either side of railway tracks and increase of size authorized September 30, 1863.
L street N., to, May 30, 1864 (C. W.).
Hst. to Canal, July 27 and August 10, 1865 (C. W.).
N street, to, (not approved by mayor), June 12, 1867 (C. W.).
Virginia avenue to river, south, May 9, 1870 (C. W.). Amended to construct sewers in both sides in lieu of center, March 28, 1871.
Water street, crossing, No. 362 (B. P. W.).
I street to New York avenue, No. 692 (B. P. W.).
N to O street N., west side, No. 806 (B. P. W.).
N to O street N., No. 835 (B. P. W. and C.).
Pennsylvania avenue and B street N., west side, No. 861 (B. P. W.).
T street to Florida avenue, No. 1034 (B. P. W.).
New York ave. to L st. N., No. 826 (Commrs.).
R to T street N., No. 954 (Commrs.).
N to O street N., east side, d. l., 1883.
N to O street N., east side, d. l., 1877.
L to M street N., east side, d. l., 1877.
B street N. to B street S.,[1] d. l., 1889, Repl.
F street S. (basins), d. l., 1890.
B street N. and B street S., d. l., 1890, Repl.
P to Q street N., d. l., 1890.
Pennsylvania avenue (basin), d. l., 1894.
N to O street N., d. l., 1895.
Mount Vernon Place N., d. l., 1895.
T street to Florida avenue N., d. l., 1896, Repl.
Dst. S. (basins), N W. and S W. corners, d. l., 1896.

Eighth street E.

C street to navy-yard S., No. 297½ (B. P. W.).
East Capitol street to Massachusetts avenue, No. 811 (B. P. W. and C.).
Maryland to Massachusetts avenue N., No. 107 (Commrs.).
East Capitol to A street N., No. 589 (Commrs.).
C street S. (basin), No. 728 (Commrs.).
I to K street, N., No. 730 (Commrs.).
G to H street N., No. 730 (Commrs.).
A street to South Carolina avenue S., No. 826 (Commrs.).
C to D street S., No. 835 (Commrs.).
H street N. (basin), No. 1171 (Commrs.).
F street S. to Maryland avenue N., No. 1202 (Commrs.).
G to H street N., No. 1468 (Commrs.).
Maryland to Massachusetts avenue N., Repl., No. 1797 (Commrs.).
E to I street S., No. 1896 (Commrs.).
K st. N., automatic siphon, No. 1913 (Commrs.)
Keokuk to Lowell st. N., No. 2217 (Commrs.)
B to C street S., No. 2394 (Commrs.).
C to D street N., west side, d. l., 1882.
A to Massachusetts avenue N., west side, d. l., 1882.
East Capitol to A street N., east side, d. l., 1876.
East Capitol to A street S., east side, d. l., 1876.
E street S. (basin), d. l., 1885.
I to K street N., d. l., 1888.
Massachusetts avenue N. (basin), d. l., 1889.
East Capitol to A street S., d. l., 1890.
C to D street N., d. l., 1891.
C street to Massachusetts avenue N., d. l., 1891.
B to C street N., d. l., 1892.
L to M street S., d. l., 1895, Repl.
H street N., d. l., 1895, Repl.
East Capitol to A street N., d. l., 1896, Repl.
Lowell to Milwaukee street, d. l., 1897.
E street to Maryland avenue N., d. l., 1897.
F to G street N., d. l., 1897.
D street N. (basin), southeast corner, d. l., 1897.

Eighth street, W.

Market space to E st. N., Nov. 1, 1866 (C. W.).
L street and Mount Vernon place N., No. 192 (B. P. W.).
G to L street N., No. 207 (B. P. W.).
D to F street N., No. 346 (B. P. W.).
G to O street N., No. 346 (B. P. W.).
Water street S., crossing, No. 362 (B. P. W.).
R street to boundary, N., No. 489 (B. P. W.).
D to G street S., No. 501 (B. P. W.).
Rhode Island avenue to Boundary N., No. 770 (B. P. W.).
T street to Florida avenue N., No. 835 (B. P. W.).
B to C street S., No. 854 (B. P. W.).
Grant avenue N., No. 1056 (B. P. W.).
N street N., crossing, No. 476 (Commrs.).
D to E street S., No. 631 (Commrs.).
C street N. (basin), No. 728 (Commrs.).
S to T street N., No. 730 (Commrs.).
G to H street S., No. 730 (Commrs.).
E to G street S., No. 954 (Commrs.).
Q street to Rhode Island avenue N., No. 954 (Commrs.).
Grant avenue to Irving street N., No. 1183 (Commrs.).
K street S. (basin), No. 1256 (Commrs.).
C to D street S., No. 1772 (Commrs.).
T street to Florida avenue, east side, d. l., 1879.
B street S., to Reservation No. —, east side, d. l., 1882.
Grant avenue to Irving street, d. l., 1889.
F street N., d. l., 1890.
H street N. (basin), d. l., 1891.
Rhode Island avenue, d. l., 1891.
D to E street N., d. l., 1891.
New Hampshire avenue to Omaha street, special permit, 1893
Quincy to Savannah street N., special permit, 1894.
G to H street N., d. l., 1894, Repl.
Rock Creek Church Road and Newark street, d. l., 1894.
Rock Creek Church Road northward, d. l., 1894.
F street S. (basin), northwest corner, d. l., 1895.
B to C street S., d. l., 1897, Repl.
F to G street S., d. l., 1897.

Ninth street, E.

Marine Barracks to Eastern Branch, act of Congress, March 3, 1863.
I to K street N., No 727 (B. P. W.).
East Capitol to B st. N., No. 811 (B P. W. and C.).
G to I street N., No. 1034 (B. P. W. and C.).
E to I street S., No. 588 (Commrs.)
D to E street S., No. 591 (Commrs.).
C to E street S., No. 591 (Commrs.).
C street to North Carolina avenue S., No. 631 (Commrs.).
East Capitol to A street S., No. 954 (Commrs.).
E to F street N., No. 954 (Commrs.).
B street S. (basin), No. 1171 (Commrs.).
C street N. (basin), No. 1256 (Commrs.).
F street N. (basin), No. 1256 (Commrs.).
N to O street S., No. 1287 (Commrs.).

[1] Original sewer constructed under contract with B. P. W.).

C to D street N., No. 1468 (Commrs.).
Maryland ave. to D st. N., No. 1566 (Commrs.).
H to I street N., No. 1723 (Commrs.).
North Carolina avenue, automatic siphon, No. 1913 (Commrs.).
F st. N., automatic siphon, No. 1913 (Commrs.).
Rhode Island avenue to Providence street N., No. 2217 (Commrs.).
M st. to Virginia ave. S., No. 2323 (Commrs.).
H street N. (basins), December 17, 1877.
B to C street S., west side, d. 1., 1879.
East Capitol to A street S., east side, d. 1., 1878.
B to C street N., d. 1., 1888.
B to C street S., d. 1., 1889.
I to K street N., d. 1., 1890.
E to F street N., d. 1., 1890.
E to F street N., d. 1., 1891.
B street to North Carolina avenue S., d. 1., 1891.
F to G street N., d. 1., 1892.
H street N., d. 1., 1893.
B to C street N., d. 1., 1894.
East Capitol to A street S., d. 1., 1895, Repl.
K to L street N., d. 1., 1896.
East Capitol street to Massachusetts avenue, d. 1., 1896, Repl.
Providence street to Bunker Hill road, d. 1., 1897.
F to G street N., d. 1., 1897.
I to K street S., d. 1., 1897.
H street N., crossing, d. 1., 1897.

Ninth street W.

G street N. to Canal (Congress requested to construct sewer in, February 19, 1852) (constructed with branch in F street, between Eighth and Ninth streets, in connection with construction of United States Patent Office, in 1852).
New York avenue, extend to north side of, October, 15, 1852 (C. W.).
Massachusetts avenue, to north side of, April 18, 1853 (C. W.).
Massachusetts ave. to L st., May 23, 1863 (C. W.).
M street N., extend to,—August 11, 1864 (C. W.).
N street N., extend to, (without mayor's approval), June 12, 1867.
L to M street, August 6, 1870 (C. W.).
M to Boundary street N., both sides, No. 150 (B. P. W.).
Pennsylvania avenue to M street N., No. 1504 (B. P. W.).
Water street S., crossing, No. 362 (B. P. W.).
Rhode Island ave. to R st., No. 770 (B. P. W.).
E to Water street S., No. 808 (B. P. W. and C.).
Rhode Island avenue and Q street N., No. 835 (B. P. W.).
B st. and Virginia ave. S., No. 854 (B. P. W. & C.).
Florida avenue N., crossing, No. 296 (Commrs.).
M to O street N., No. 476 (Commrs.).
D to E street S., No. 589 (Commrs.).
R to S street N., No. 589 (Commrs.).
E to I street S., No. 591 (Commrs.).
U to V street N., No. 591 (Commrs.).
E st. to Maryland ave. S., No. 593 (Commrs.).
P to Q street N., No. 826 (Commrs.).
T to U street N., No. 826 (Commrs.).
I street S. (basin), No. 957 (Commrs.).
Westminster to T street N., No. 1270 (Commrs.).
Florida and Grant aves. N., No. 1566 (Commrs.).
Florida and Grant aves. N., No. 1723 (Commrs.).
H to I street N., No. 1723 (Commrs.).
Florida avenue N., automatic siphon, No. 1913 (Commrs.).
S to T street N., east side, d. 1., 1885.
R to S street N., d. 1., 1885.
T to U street N., west side, d. 1., 1876.
S street N., d. 1., 1886.
O to P street N., d. 1., 1888.
N to O street N., d. 1., 1888.
U street N., near (basin), d. 1., 1893.
E street S., d. 1., 1893.
Florida to Grant avenue (basin), d. 1., 1894.
Q st. to Rhode Island ave. N., d. 1., 1895, Repl.
T street to Florida avenue N., d. 1., 1895, Repl.
Mount Vernon place, automatic siphon, d. 1., 1896.
Pennsylvania avenue (basin), northwest corner, d. 1., 1896.
D street N. (basin), northwest corner, d. 1., 1896.
Pennsylvania avenue N., d. 1., 1897.

Tenth street E.

Pennsylvania to South Carolina avenue, N
791 (B. P. W.).
East Capitol street to Pennsylvania avenu
No. 791 (B. P. W.).
East Capitol street to Massachusetts avenu
No. 811 (B. P. W. & C.).
H to I street N., No. 1034 (B. P. W. & C.)
G to I street N., No. 5 (Commrs.).
B to C street N., No. 589 (Commrs.).
E to G street S., No. 631 (Commrs.).
E st. to Pennsylvania ave. S., No. 954 (Commrs.
East Capitol to A street S., No. 954 (Commrs.
B street S. (basin), No. 1256 (Commrs.)
D street S. (basins), No. 1256 (Commrs.).
South Carolina avenue S. (basin), No. 12
(Commrs.).
G to I street S., No., 1270 (Commrs.).
Maryland ave. to E st. N., No. 1715 (Commrs.
D to E street N., No. 1723 (Commrs.).
B street to South Carolina avenue S., No. 18
(Commrs.).
G st. S., automatic siphon, No. 1913 (Commrs.
East Capitol street to Massachusetts avenu
No. 2056 (Commrs.).
H to K street N., No. 2184 (Commrs.).
I street N. (basins), December 17, 1877.
Massachusetts ave. to B st., east side, d. 1., 188
North Carolina avenue to East Capitol stree
d. 1., 1885.
E to G street S., d. 1., 1886.
B street to Massachusetts avenue, d. 1., 1886.
East Capitol street to Massachusetts avenu
d. 1., 1887.
Pennsylvania avenue to D street S., d. 1., 188
L to M street S., d. 1., 1890.
E to G street S., d. 1., 1890.
F street to Maryland avenue N., d. 1., 1890.
E to G street S., d. 1., 1893.
D street S., to Maryland avenue N., d. 1., 189
E to G street S., d. 1., 1894.
C to D street N., d. 1., 1895.
East Capitol to A street, d. 1., 1895.
D to E street N., d. 1., 1895.
D street N. (basin), SE. corner, d. 1., 1895.
D street S. (basins), d. 1., 1895.
K street to Virginia avenue S., d. 1., 1897.
D street S., automatic siphon, d. 1., 1895.
M street to Public Space S., d. 1., 1897.
Public Space and K street S., d. 1., 1896.
I to K street S., d. 1., 1897.
M to N street S., d. 1., 1896.
M to N street S., d. 1., 1897.
Massachusetts avenue to East Capitol street
d. 1., 1897.

Tenth street W.

I to New York avenue, November 4, 1857, Jan
uary 7, 1863, October 20, 1863 (C. W.).
New York avenue to M street, May 30, 1864
July 27, 1865 (C. W.).
Canal to New York avenue, May 23, 1867 (C. W.)
New York to Massachusetts avenue, January
4, 1871 (C. W.).
Massachusetts avenue to N street N., No. 35
(B. P. W.).
Water street S., crossing, No. 362 (B. P. W.).
R street to Rhode Island avenue, both sides
No. 738 (B. P. W.).
R to T street N., No. 803 (B. P. W.).
Maryland avenue to C street S., No. 85
(B. P. W. & C.).
G to Water street S., No. 1063 (B. P. W.).
R to T street N., No. 1098 (B. P. W.).
N to O street N., No. 5 (Commrs.).
U to V street N., No. 296 (Commrs.).
Q to R street N., No. 584 (Commrs.).
Rhode Island avenue to Q street N., No. 59
(Commrs.).
E street S. (basin), No. 826 (Commrs.).
D to E street S., No. 1270 (Commrs.).
Westminster st. (basin), No. 1473 (Commrs.).
Rhode Island avenue to P street N., No. 156
(Commrs.).
L to M street N., No. 1897 (Commrs.).
Virginia ave. to B street S., east side, d. 1., 1883
R to Q street N., east side, d. 1., 1884.
Florida avenue, crossing, d. 1., 1884.

E to F street, d. l., 1880.
G to H street N., west side, d. l., 1883.
E to F street, d. l., 1882.
D to E street S., west side, d. l., 1882.
R to S street N., d. l., 1885.
French to S street N., 1884.
Maryland avenue to C street S., d. l., 1886.
P street to Rhode Island avenue N., d. l., 1887.
E to F street S., d. l., 1887.
D to E street S., d. l., 1887.
V to W street N., d. l., 1887.
U to V street N., d. l., 1888.
Virginia avenue to C street S., d. l., 1888.
Rhode Island avenue to P street N., d. l., 1889.
R to S street N., d. l., 1889.
V to W street N., d. l., 1889.
New York ave. to K st. N. (basin), d. l., 1890.
F to G street N., d. l., 1892.
V to W street N., d. l., 1890.
N to O street N., d. l., 1893, Repl.
Pennsylvania avenue N., crossing, d. l., 1895.
D to E street S., d. l., 1893.
Massachusetts ave. to L st. N., d. l., 1894, Repl.
V to W street N., d. l., 1895.
F to G street S., d. l., 1896.
Massachusetts avenue N., automatic siphon, d. l., 1896.
C street and Maryland avenue S., d. l., 1897.
T street N., crossing, d. l., 1897, Repl.
E to F street S., d. l., 1897.
C to D street S., d. l., 1897.
R to S street N., automatic siphon, d. l., 1897.

Eleventh street E.

B street to South Carolina avenue S., No. 582 (B. P. W. and C.).
D to E street S., No. 731 (B. P. W.)
B st. to South Carolina ave. S., No. 781 (B. P. W.).
North to South Carolina avenue, west side, No. 1023 (B. W. P.).
North to South Carolina avenue, east side, No. 1033 Ex. (B. P. W.).
Park place to C street N., No. 589 (Commrs.).
M st. to Eastern Branch, No. 589 (Commrs.).
E to I street S., No. 631 (Commrs.).
I street S. (basins), No. 957 (Commrs.).
O street S. (basin), No. 957 (Commrs.).
O to P street S. (basin), No. 957 (Commrs.).
H to I street N., No. 1270 (Commrs.).
L to M street S., No. 1270 (Commrs.).
I to K street N., No. 1468 (Commrs.).
B street S. (basin), No. 1473 (Commrs.).
North Carolina avenue S., automatic siphon, No. 1913 (Commrs.).
East Capitol street, automatic siphon, No. 1913 (Commrs.).
G to I street S., replacing, No. 2206 (Commrs.).
B to C street N., east side, d. l., 1878.
Massachusetts avenue to C street N., d. l., 1878.
East Capitol to A street N., d. l., 1887.
N street S. (basin), d. l., 1889.
South Carolina ave. to B st. S., d. l., 1890, Repl.
B street S. (basin), d. l., 1891.
South Carolina ave. to C. st. S., d. l., 1891, Repl.
B to C street S., d. l., 1891, Repl.
East Capitol to B street S., d. l., 1891.
A to B street N., d. l., 1891.
Public Square to B street N., d. l., 1891.
D street S. (basin), d. l., 1893.
F to G street N., d. l., 1892.
H to I street N., d. l., 1893.
A to B street N., d. l., 1894.
K to L street S., d. l., 1894.
I to K street S., d. l., 1894.
H to I street N. (basin), d. l., 1894.
C to D street S., d. l., 1894.
Georgia avenue S. (basin), d. l., 1894.
B street S., d. l., 1894.
North Carolina ave. to B st. S., d. l., 1894, Repl.
G to H street N., d. l., 1894.
I to K street S., d. l., 1895.
I street to Florida avenue N., d. l., 1895.
H to K street N., d. l., 1895.
G to H street N., d. l., 1895.
D to E street N., d. l., 1895.
I street N. (basin), d. l., 1895.
G street N. (basin), d. l., 1895.
I to K street N. (basins), d. l., 1896.
F street N. (basin), NE. corner, d. l., 1896.
Maryland ave N. (basin), SW. corner, d. l., 1896.
F street N. (basin), SE. corner, d. l., 1896.
Florida ave. N. (basin), SW. corner, d. l., 1896.
K street to Florida avenue N. (basin), d. l., 1896.
E street N. (basin), d. l., 1896.
D to E street S., d. l., 1896, Repl.
M street S. to Virginia avenue, d. l., 1897.
Anacostia bridge, near (basin), d. l., 1897.
O street S. (basin), NW. corner, d. l., 1897.
N street S. (basin), NW. corner, d. l., 1897.

Eleventh street W.

F street N, July 26, 1815, July 11, 1820 (C. W.).
F street to Pennsylvania avenue N., March 23, 1821 (C. W.).
C street to Pennsylvania avenue N., November 2, 1821, August 18, 1825 (C. W.).
C street to Canal, May 30, 1851 (C. W.).
Canal to N street N., December 2, 1865 (C. W.).
Canal to F street N., April 21, 1869 (C. W.).
F to O street N., No. 92 (B. P. W.).
Water street S., crossing, No. 302 (B. P. W.).
S to U street N., No. 402 (B. P. W. and C.).
Maryland avenue to Potomac River, No. 530 (B. P. W.).
B street to Maryland avenue, No. 855 (B. P. W.).
U to V street N., No. 1050 (B. P. W. & C.).
T street N. (basin), No. 728 (Commrs.).
S street N. (basin), No. 1171 (Commrs.).
N to P street N., No. 1566 (Commrs.).
E street S. to Potomac River, replacing, No. 1898 (Commrs.).
New York ave. to M st. N., No. 2056 (Commrs.).
N to O street N., d. l., 1877.
T to S street N., east side, d. l., 1879.
R st. to Vermont ave. N., west side, d. l., 1880.
Q to T street N., west side, d. l., 1880.
K to L street N., west side, d. l., 1882.
D to E street S., d. l., 1882.
E to F street N., west side, d. l., 1884.
O to Q street N., d. l., 1887.
Virginia avenue to C street S., d. l., 1887.
Virginia to Maryland avenue S., d. l., 1890, Repl.
Virginia avenue to C street S., d. l., 1891, Repl.
Rhode Island avenue to Q street N., d. l., 1892.
G to H street N., d. l., 1893.
C street to Maryland avenue S., d. l., 1894, Repl.
C street to Maryland avenue S., d. l., 1894.
F to Water street S., d. l., 1895, Repl.
E street N. (basins), d. l., 1895.
Maryland ave. S., automatic siphon, d. l., 1895.
U to V street N., d. l., 1896.
E st. N. (basins), SW. and SE. corners, d. l., 1896.
N to O street N., automatic siphon, d. l., 1896.

Twelfth street E.

K street, across, October 27, 1870 (C. W.).
K to I street S., February 11, 1871 (C. W.).
I st. to Pennsylvania ave. S., No. 391 (B. P. W.).
South Carolina to Pennsylvania avenue, No. 820 (Commrs.).
Maryland ave. to G st. N., No. 954 (Commrs.).
Florida avenue N. (basins), No. 957 (Commrs.).
E street S. (basins), No. 957 (Commrs.).
B street to South Carolina avenue S., No. 972 (Commrs.).
G to James street N., No. 1004 (Commrs.).
H to I street N., No. 1004 (Commrs.).
F street N. (basin), No. 1256 (Commrs.).
G to H street N., No. 1468 (Commrs.).
D to Duncan street N., No. 1468 (Commrs.).
A street N. (basin), No. 1473 (Commrs.).
B street N. (basin), No. 1473 (Commrs.).
D street N. No. 1473 (Commrs.).
B to C street S., No. 1715 (Commrs.).
B to C street S., crossing Twelfth, No. 1716 (Commrs.).
A to B street N., No. 1716 (Commrs.).
E st. to Maryland ave. N., No. 1728 (Commrs.).
D to E street N., No. 1797 (Commrs.).
N st. to Eastern Branch S., No. 2059 (Commrs.).
D st. to Maryland ave. N., east side, d. l., 1881.
H to I street N., d. l., 1887.
G to H street S., d. l., 1887.
M to N street S., d. l., 1887.
M to N street S., d. l., 1888.
C street to South Carolina avenue S., d. l., 1885.

G street to Maryland avenue N., d. l., 1889.
B street S. (basin), d. l., 1891.
N street to Florida avenue N. (basin), d. l., 1891.
Florida avenue to N street N., d. l., 1891.
Georgia avenue to L street S., d. l., 1891.
Maryland avenue to G street N., d. l., 1891.
B to C street N., d. l., 1892.
D to E street N., d. l., 1893.
B to C street S., d. l., 1893.
A to B street S., d. l., 1893.
A to B street N., d. l., 1894.
N to P street N., d. l., 1894
C to D street S., d. l., 1895.
B to D street N., d. l., 1895.
D street S. (basin), NE. corner, d. l., 1895.
C street S. (basin), NE. corner, d. l., 1895.
Walker street (basin), NE. corner, d. l., 1895.
B street S. (basin), NE. corner, d. l., 1895.
C street S. (basins), d. l., 1895.
C to D street S., d. l., 1896.
D street N. (basin), SW. corner, d. l., 1896.
Park street N. (basin), NW. corner, d. l., 1896.
G to I street S., d. l., 1897.
I to K street N., d. l., 1897.
H to I street N., d. l., 1897.
G to H street N., d. l., 1897.
E street to Pennsylvania avenue S., d. l., 1887.
Hartford to Lansing street N., d. l., 1897.
O street S., intersection, d. l., 1897.

Twelfth street W.

Pennsylvania to Massachusetts avenue, November 16, 1868 (C. W.).
M to N st., May 24, 1869, Nov. 12, 1870 (C. W.).
M to N street N., March 28, 1871 (C. W.).
Potomac River to canal, No. 28 (B. P. W.).
Pennsylvania ave. to canal, No. 73 (B. P. W.).
Massachusetts avenue to M street N., No. 343 (B. P. W.).
Massachusetts avenue to M street N., No. 363 (B. P. W.).
Q street N., crossing, No. 1058 (B. P. W.).
Rhode Island avenue to Q street N., No. 1074 (B. P. W.).
R to S street N., No. 1170 (B. P. W.).
S to T street N., No. 244 (Commrs.).
N to O street N., No. 5 (Commrs.).
T to U street N., No. 593 (Commrs.).
Q to R street N., No. 826 (Commrs.).
O to P street N., No. 1169 (Commrs.).
V street N. (basin), No. 1256 (Commrs.).
S street N. (basins), No. 1256 (Commrs.).
E street S. (basin), No. 1473 (Commrs.).
R to S street N., No. 1798 (Commrs.).
N st. N., automatic siphon, No. 1913 (Commrs.).
Massachusetts avenue to M street N., No. 2085 (Commrs.).
V to W street N., July 27, 1877.
P st. to Rhode Island ave. N., August 30, 1877.
V to W street N., west side, d. l., 1877.
S to T street N., east side, d. l., 1878.
S to T street N., west side, d. l., 1879.
R to S street N., d. l., 1883.
B street N. to B street S., d. l., 1883.
W street to Florida avenue N., d. l., 1885.
U to V street N., d. l., 1887.
O street N., d. l., 1888.
Q to R street N., d. l., 1888.
O to P street N., d. l., 1888.
R to S street N., d. l., 1888.
Rhode Island avenue to Q street N., d. l., 1888.
O street N., d. l., 1890.
F to G street N., d. l., 1890.
P street to Rhode Island avenue N., d. l., 1891.
S to T street N., d. l., 1892, Repl.
N to O street N., d. l., 1893, Repl.
U to V street N., d. l., 1893.
D to E street N., d. l., 1893.
S street N., crossing, d. l., 1894.
C street to Virginia avenue S., d. l., 1895, Repl.
S to T street N., d. l., 1894.
S to T street N., d. l., 1896.
R to S street N., d. l., 1897.

Thirteenth street E.

G to H street N., No. 702 (B. P. W. & C.).
H to I street N., No. 449 (Commrs.).
F street N. (basin), No. 957 (Commrs.).
North Carolina avenue to B street S., No. 1270 (Commrs.).
E to F street N., No. 1468 (Commrs.)
H to I street N., No. 1716 (Commrs.).
K street to Georgia ave. S., No. 2182 (Commrs.).
Maryland avenue to G street N., d. l., 1878.
H to I street N., d. l., 1885.
Maryland avenue to E street N., d. l., 1888.
I street to Florida avenue N., d. l., 1890.
D to E street N., d. l., 1892.
Pennsylvania avenue to E street S., d. l., 1892.
E to F street N., d. l., 1893.
Duncan place (basin), d. l., 1893.
E street S., d. l., 1894.
Tennessee avenue (basin), d. l., 1894.
H street N., crossing, d. l., 1894.
D street N., d. l., 1895.
C street to South Carolina avenue S., d. l., 1895.
C street N. (basin), d. l., 1895.
B to C street N., d. l., 1896.
South Carolina to Kentucky avenue, d. l., 1896.
South Carolina ave. (basin), SE. cor., d. l., 1896.
Kentucky to Massachusetts avenue, d. l., 1896.
A to B street N., d. l., 1896.
A to B street S., d. l., 1896.
Georgia avenue to G street S., d. l., 1896.
D to C street S., d. l., 1897.
South Carolina to Kentucky avenue, d. l., 1897.
D to E street S., d. l., 1897.
Pennsylvania ave. to E st. S., d. l., 1897.
South Carolina avenue S. (basin), d. l., 1897.

Thirteenth street, W.

E street to Canal, May 6, 1854 (C. W.).
E to G street N., August 11, 1857 (C. W.), September 16, 1857.
G to I street N., October 14, 1869 (C. W.).
E street to Canal, November 2, 1861 (C. W.).
L street to Massachusetts avenue, August 22, 1870 (C. W.).
M to N street, December 9, 1870 (C. W.).
N to S street N., March 21, 1871 (C. W.) (not constructed).
N to O street N., east side, No. 428 (B. P. W.).
Corcoran to R street N., No. 578 (B. P. W.).
B street to Maryland avenue, No. 808 (B. P. W.).
B street to Maryland avenue, No. 815 (B. P. W.).
Potomac River to Maryland avenue, No. 854 (B. P. W. & C.).
Riggs place and S street N., No. 930 (B. P. W. & C.).
T to U street N., No. 1034 (B. P. W. & C.).
V street N. (crossing), No. 1050 (B. P. W.).
B street to Maryland avenue, No. 1067 (B. P. W.).
Q st. to Iowa circle N., No. 1074 (B. P. W. & C.).
O st. to Iowa circle N., No. 1087 (B. P. W. & C.).
T to V street N., No. 5 (Commrs.).
Q to R street N., replacing, No. 826 (Commrs.).
Harvard to Columbia st. N., No. 838 (Commrs.).
Corcoran street N. (basins), No. 957 (Commrs.).
S to T street N., No. 1195 (Commrs.).
Princeton st. N. (basin), No. 1256 (Commrs.).
T to U street N., No. 1270 (Commrs.).
H street N. (basin), No. 1473 (Commrs.).
Wallach place N. (basin), No. 1473 (Commrs.).
U street N. (basin), No. 1473 (Commrs.).
E street S. (basin), No. 1473 (Commrs.).
Clifton street N. (basin), No. 1473 (Commrs.).
Florida ave. to V street N., No. 1506 (Commrs.).
Spring road to Lydecker street N., No. 1797 (Commrs.).
Columbia road to Kenyon street N., No. 1924 (Commrs.).
Q street N. (basins), October 13, 1877.
R to S street N., east side, d. l., 1878.
Q to Corcoran street N., west side, d. l., 1879.
S to T street N., east side, d. l., 1882.
Q to R street N., east side, d. l., 1882.
R to S street N., east side, d. l., 1882.
K to L street N., d. l., 1884.
Q to Corcoran street N., west side, d. l., 1884.
S to T street N., west side, d. l., 1883.
Q to R street N, east side, d. l., 1883.
R to S street N., d. l., 1885.
S to T street N., d. l., 1886.
R to S street N., d. l., 1887.
Florida avenue to Clifton street N., d. l., 1887.
D street S. (basin), d. l., 1889.
Massachusetts avenue to M street N., d. l., 1889.

Harvard to Princeton street, d. l., 1889.
T to U street N., d. l., 1890.
Maryland avenue to E street S., d. l., 1890.
W street to Florida avenue N., d. l., 1891.
E to F street N., d. l., 1891.
Florida avenue N., d. l., 1892.
Princeton to Harvard street N., d. l., 1893.
Vermont avenue to Q street N., d. l., 1892.
Clifton to Roanoke street N., d. l., 1893.
Iowa circle to Q street N., d. l., 1893.
Harvard street N. (basins), d. l., 1894.
Clifton to Roanoke street N., d. l., 1894.
Yale to Princeton street N., d. l., 1894.
Lydecker to Lamar street, d. l., 1894.
Spring road to Lydecker avenue, d. l., 1894.
V street N. (basin), SW. corner, d. l., 1895.
Clifton street N. (basin), NE. corner, d. l., 1895.
O street N. (automatic siphon), d. l., 1895.
Yale to Princeton street N., d. l., 1896.
Whitney to Lydecker avenue, d. l., 1896.
Whitney avenue to Kenyon street N., d. l., 1896.
F to G street N., d. l., 1896.
Howard to Columbia street N., d. l., 1897.
Clifton to Roanoke street N., d. l., 1897.
Harvard street N., d. l., 1897.
Columbia road (basin), NW. corner, d. l., 1897.
Clifton street N. (basin), NW. corner, d. l., 1897.
Yale street N. (basin), SW. corner, d. l., 1897.

Thirteen-and-a-half street W.

C to E street N., No. 697 (B. P. W.).
B to D street S., No. 806 (B. P. W.).
Maryland avenue to Potomac River S., No. 854 (B. P. W. & C.).
Water street S. (basin), No. 728 (Commrs.).
C street S. (basin), No. 957 (Commrs.).
D street S. (basin), No. 1256 (Commrs.).
B to C street N., west side, d. l., 1878.
B to C street S., d. l., 1878.
B to C street S., d. l., 1888, Repl.
C to D street S., both sides, d. l., 1888, Repl.
Maryland avenue to D street S., d. l., 1889, Repl.
B street N. (basins), NE. and NW. corners, d. l., 1896.
B to C street S., d. l., 1897, Repl.
Pennsylvania avenue to Eastern Branch, No. 1383 (Commrs.).
Pennsylvania avenue to K street S., No. 1467 (Commrs.).
Pennsylvania avenue to G street S., No. 1480 (Commrs.).
E to F street N., No. 1716 (Commrs.).
E to G street S., No. 1728 (Commrs.).
B to E street S., No. 1868 (Commrs.).
A to B street S., No. 1924 (Commrs.).
North Carolina avenue to B street N., No. 2225 (Commrs.).
H street to Florida avenue N., d. l., 1888
E to F street N., d. l., 1893.
G street N. (basin), d. l., 1894.
E street S. (basins), d. l., 1894.
C street S. (basin), d. l., 1894.
D to E street S., d. l., 1894.
B to D street S. (basins), d. l., 1894.
South Carolina avenue S. (basin), d. l., 1894.
F street N. (basins), d. l., 1894.
Emerson street N. (basin), d. l., 1894.
G street N. (basin), d. l., 1894.
F to G street N., d. l., 1894.
C street to South Carolina ave. S., d. l., 1894.
C street to South Carolina ave. S., d. l., 1895.
E to G street S., d. l., 1896.
C street S., SW. corner (basin), d. l., 1896.
C street S., NE. corner (basin), d. l., 1896.
East Capitol to A street S., d. l., 1896.
F to G street N., d. l., 1896.
East Capitol to A street S., d. l., 1897.
B street to South Carolina avenue S., d. l., 1897.
North Carolina avenue S., crossing, d. l., 1897.
F to G street N., d. l., 1897.
E to G street S., d. l., 1897.
B to C street S., d. l., 1897.

Fourteenth street W.

Pennsylvania avenue to Tiber, August 15, 1812 (C. W.).
Franklin square to Canal, Congress urged to construct sewer, June 21, 1853 (C. W.).
Pennsylvania avenue to E street, revives act to construct, August 26, 1860 (C. W.).
N street to Canal, June 8, 1865 (C. W.).
N street to Boundary N., both sides, No. 241 (B. P. W.).
B street to Maryland avenue S., No. 448 X (B. P. W.).
Pennsylvania avenue to H street, reconstruction, No. 94 (Commrs.).
Rhode Island ave., crossing, No. 590 (Commrs.).
Ohio avenue N. (basins), No. 728 (Commrs.).
Maryland ave. to D st. S., No. 728 (Commrs.).
Euclid place to Binney st. N., No. 730 (Commrs.).
Euclid place to Welling street N., No. 730 (Commrs.).
Welling street, crossing, No. 730 (Commrs.).
Columbia to Park street N., No. 833 (Commrs.).
Kenesaw ave. N. (basins), No. 1256 (Commrs.).
Spring road N., No. 1297 (Commrs.).
P street to Rhode Island avenue N., No. 1385 (Commrs.).
Oak to Spring street N., No. 1387 (Commrs.).
U street N. (basin), No. 1473 (Commrs.).
Florida avenue N. (basin), No. 1473 (Commrs.).
Roanoke to Princeton st. N., No. 1716 (Commrs.).
P to Q street N., replacing, No. 1750 (Commrs.).
D st. to Maryland ave. S., No. 1806 (Commrs.).
T to V street N., replacing, No. 1896 (Commrs.).
R st. N., automatic siphon, No. 1913 (Commrs.).
Riggs street N., automatic siphon, No. 1913 (Commrs.).
Florida avenue to Roanoke street N., No. 2060 (Commrs.).
Center to Park street N., No. 2323 (Commrs.).
T street N., crossing, d. l., 1878.
Florida avenue to Welling street N., d. l., 1885.
Florida avenue to Chapin street N., d. l., 1885.
Chapin to Welling street N., d. l., 1885.
Maryland avenue to D street S. (basin), d. l., 1888.
Florida avenue to Roanoke street N., d. l., 1889.
Park street N., d. l., 1889.
Park to Sheridan street N., d. l., 1889.
Pierce place N. (basin), d. l., 1891.
I to K street N., d. l., 1891.
K street N., d. l., 1891.
B to C street S., d. l., 1891.
D street N., d. l., 1891.
B to C street S., d. l., 1891.
Columbia road N. (basin), d. l., 1892.
C to D street S., d. l., 1892, Repl.
C to D street S., d. l., 1892.
Pennsylvania avenue to D street N., d. l., 1892.
C street to Ohio avenue N., d. l., 1894.
Spring road to Piney Branch, d. l., 1894.
Park street N. (basin), d. l., 1894.
D street S., crossing, d. l., 1894. Repl.
Princeton to Harvard street N., d. l., 1894.
Princeton to Harvard street N., d. l., 1895.
Bacon street to Columbia road N., d. l., 1895.
Bacon to Binney street N., d. l., 1895.
H to I street N., d. l., 1896.
Harvard to Columbia street, d. l., 1896.
B street N. SE. corner (basin), d. l., 1896.
Q st. N., NE. corner, automatic siphon, d. l., 1896.
Q street N., NW. corner, automatic siphon, d. l., 1896.
Q st. N., SW. corner, automatic siphon, d. l., 1896.
K to L street N., d. l., 1897.
Yale to Princeton street N., d. l., 1897.
Binney street N., near, d. l., 1897.
Princeton to Binney street N., d. l., 1897.

Fifteenth street E.

G street to Eastern Branch, through Isherwood, No. 809 (B. P. W.).
G st. to Tennessee ave. N., No. 820 (Commrs.).
Tennessee ave. to C st. N., No. 2003 (Commrs.).
A to C street N., No. 2225 (Commrs.).
H street S. (basin), d. l., 1889.
Gales to E street N., d. l., 1891.
G street N. (basin), d. l., 1894.
Pennsylvania to Georgia avenue S., d. l., 1894.
A to B street S., d. l., 1895.
B street to South Carolina avenue S., d. l., 1895.
Pennsylvania to Georgia avenue S., d. l., 1895.
C street N., SW. corner (basin), d. l., 1895.
E street N. (basin), d. l., 1895.
F street N., SW. corner (basin), d. l., 1895.

South Carolina avenue to B street S. (basin), d. l., 1895.
B street S. (basins), d. l., 1895.
D street N. (basin), d. l., 1895.
East Capitol to A street N., d. l., 1896.
East Capitol to A street N. (basin), d. l., 1896.
G street N., crossing, d. l., 1897.
East Capitol to A street S., d. l., 1897.
Rosedale to Gales street N., d. l., 1897.
Rosedale street N. (basin), d. l., 1897.

Fifteenth street W.

Pennsylvania avenue to G street, November 15, 1897 (C. W.), construct sewer under act of Congress of March 3, 1849.
White Lot, relay sewer along, act of Congress of March 3, 1855.
S to T street N., No. 465 (B. P. W.).
R to S street N., No. 624 (B. P. W.).
S to T street N., No. 624 (B. P. W.).
K st. to Rhode Island ave. N., No. 629 (B. P. W.).
Rhode Island avenue to Boundary N., both sides, No. 783 (B. P. W.).
R to S street N., No. 844 (B. P. W.).
N st. to Rhode Island ave. N., No. 1024 (B. P. W.).
Rhode Island avenue to Boundary No. 1094 (B. P. W.).
S to T st. N., replacing, No. 1094 (B. P. W. & C.).
E st. to New York ave. N., No. 177 (Commrs.).
S to T street N., No. 583 (Commrs.).
M street to Massachusetts avenue N., No. 589 (Commrs.).
T to U street N., No. 591 (Commrs.).
Corcoran to S street N., No. 601 (Commrs.).
O to P street N., No. 730 (Commrs.).
U to W street N., No. 730 (Commrs.).
B to D street S., No. 833 (Commrs.).
Pennsylvania avenue N. (basin), No. 957 (Commrs.).
U street N. (basins), No. 1473 (Commrs.).
Pennsylvania avenue to H street N., No. 1566 (Commrs.).
Chapin street N., automatic siphon, No. 1913 (Commrs.).
Kenesaw to Grant ave. N., No. 2231 (Commrs.).
R to S street N., d. l., 1878.
R to Corcoran street N., west side, d. l., 1879.
Q to S street N., d. l., 1879.
Massachusetts avenue to N street N., west side, d. l., 1879.
R to S street N., west side, d. l., 1881.
Q to Corcoran street N., west side, d. l., 1880.
E street N., crossing, d. l., 1884.
O to P street N., west side, d. l., 1883.
R to Corcoran street N., west side, d. l., 1885.
New York ave. to H st. N., east side, d. l., 1884.
S to T street N., east side, d. l., 1877.
Massachusetts avenue to N street N., west side, d. l., 1885.
Florida avenue, north of, d. l., 1885.
Pennsylvania avenue N., (basin), d. l., 1889.
Rhode Island avenue to O street N., d. l., 1890.
K to L street N., d. l., 1890, Repl.
P to Q street N., d. l., 1892, Repl.
Pennsylvania avenue N., d. l., 1892.
E street N., d. l., 1893.
Pierce place N., d. l., 1894, Repl.
Kenesaw avenue northward, d. l., 1895.
Kenesaw to Grant avenue N., d. l., 1895.
P to Q street N., d. l., 1895, Repl.
W street N. (basin), d. l., 1895.
V street N. (basins), d. l., 1895.
T street N. (basin), d. l., 1895.
R street N., NW. corner (basin), d. l., 1896.
H street N., d. l., 1896.
Kenesaw avenue to Columbia road N., d. l., 1897.
S to Pierce street N., d. l., 1897.
F street N., SE. corner (basin), d. l., 1897.
Massachusetts ave. to P st. N. (siphon), d. l., 1897.

Sixteenth street E.

Gales street to Bennings road, No. 897 (Commrs.).
Gales to Rosedale street N., No. 1716 (Commrs.).
Gales street N. (basin), d. l., 1894.
Gales to Bennings road N., d. l., 1894.

Sixteenth street W.

H to Boundary street N., No. 311 (B. P. W.).
V to Boundary st. N., No. 849 (B. P. W. and C.).
T to Caroline street N., No. 179 (Commrs.).
K to N street N., No. 591 (Commrs.).
U street N. (basin), No. 1256 (Commrs.).
U street N. (basin), No. 1473 (Commrs.).
Corcoran st. N. (basins), No. 1473 (Commrs.).
Caroline street (basin), No. 1473 (Commrs.).
Superior to Erie street N., No. 1728 (Commrs.).
New Hampshire avenue N., crossing, No. 2206 (Commrs.).
K to L street N., d. l., 1889, Repl.
K to L street N., d. l., 1890, Repl.
L to M street N., d. l., 1890, Repl.
K to L street N., both sides, d. l., 1891, Repl.
K street N., crossing, d. l., 1891, Repl.
P to Q street N., d. l., 1892, Repl.
Corcoran to R street N., d. l., 1894, Repl.
Rhode Island avenue, SW. corner, automatic siphon, d. l., 1896.
U street, near intersection (basin), d. l., 1896.
Kenesaw to Grant avenue, d. l., 1897.

Seventeenth street E.

E street to Georgia avenue S., No. 2222 (Commrs.).

Seventeenth street W.

Pennsylvania avenue, May 9, 1811 (C. W.).
New York avenue, December 2, 1847 (C. W.); October 16, 1850.
New York avenue to Pennsylvania avenue, May 16, 1867 (C. W.).
Pennsylvania ave. to I st., May 16, 1867 (C. W.).
Pennsylvania avenue to Canal, act of Congress May 15, 1850 (C. W.).
New York avenue to Potomac River, No. 245 (B. P. W.).
K street to Massachusetts avenue N., No. 247 (B. P. W.).
B st. to Virginia ave. N., No. 330 (B. P. W.).
N street to Boundary N., No. 355 (B. P. W.).
L to M street N., No. 549 (B. P. W.).
B street, temporary outlet, No. 560 (B. P. W.).
R to S street N., No 929 (B. P. W. & C.).
R street to Massachusetts avenue N., No. 1094 (B. P. W. & C.).
Massachusetts avenue and O street, crossing, No. 5 (Commrs.).
B street N., No. 177 (Commrs.).
B to G street N., No. 251 (Commrs.).
Rhode Island ave. to M st., No. 589 (Commrs.).
Q to Corcoran street N., No. 601 (Commrs.).
Corcoran street N. (basins), No. 957 (Commrs.).
O to Q street N. (basins), No. 1171 (Commrs.)
S street N. (basin), No. 1171 (Commrs.).
R street N. (basins), No. 1171 (Commrs.).
U street N. (basins), No. 1256 (Commrs.).
V street N. (basin), No. 1256 (Commrs.).
T street N. (basin), No. 1256 (Commrs.).
Park to Laurel street N., No. 1270 (Commrs.).
K to L street N., No., 1468 (Commrs.).
D to E street N., No. 1468 (Commrs.).
D street N. (basin), No. 1473 (Commrs.).
Park street N. (basin), No. 1473 (Commrs.).
M street N., 2 automatic siphons, No. 1913 (Commrs.).
L to DeSales street N., No. 2206 (Commrs.).
H to I street N., east side, d. l., 1883.
O to P street N., d. l., 1885.
Q to R street N., d. l., 1887.
Q to R street N., d. l., 1889.
Pennsylvania avenue N., crossing, d. l., 1891.
K to L street N., d. l., 1891, Repl.
Corcoran to R street N., d. l., 1892.
I to K street N., d. l., 1891, Repl.[1]
Park street N. (basin), d. l., 1894.
R to S street N., d. l., 1896, Repl.
Willard to U street N., d. l., 1896.
Madison street N., SE. corner (basin), d. l., 1896.
Seaton to V street N., d. l., 1897.
Corcoran to R street N., d. l., 1897.
U st. N., NE. and NW. cors. (basins), d. l., 1897.

[1] Original sewer constructed under contract with B. P. W.

Eighteenth street W.

H street to Pennsylvania avenue N., May 16, 1867 (C. W.).
Florida ave. to P st. N., No. 355 (B. P. W. & C.).
M to N street N., No. 355 (B. P. W.).
I to M street, No. 397 (B. P. W.).
B street to Virginia avenue, No. 400 (B. P. W.).
New York avenue, crossing, No. 538 (B. P. W.).
N st. to Massachusetts ave., No. 677 (B. P. W.).
P to Q street N., west side, No. 677 (B. P. W.).
P street N. (basin), No. 1034 (B. P. W. & C.).
Massachusetts ave. to P st. N., No. 5 (Commrs.).
E to F street N., No. 730 (Commrs.).
P to Q street, No. 730 (Commrs.).
C street to Virginia avenue, No. 1171 (Commrs.).
C to G street N., No. 1225 (Commrs.).
California avenue (basins), No. 1256 (Commrs.).
Vernon street (basins), No. 1256 (Commrs.).
Wyoming avenue (basin), No. 1256 (Commrs.).
Wyoming avenue to Columbia road, No. 1270 (Commrs.).
F st. to Pennsylvania ave., No. 1287 (Commrs.).
D to E street N., No. 1468 (Commrs.).
D street N. (basins), No. 1473 (Commrs.).
E street N. (basin), No. 1473 (Commrs.).
B street N. (basins), No. 1473 (Commrs.).
Columbia road (basins), No. 1473 (Commrs.).
M street to Jefferson place, d. l., 1879.
P to Q street N., east side, d. l., 1882.
Madison place (basin), d. l., 1888.
Florida avenue N. (basin), d. l. 1890.
Florida to Wyoming avenue, d. l., 1890.
Florida avenue (basin), d. l., 1891.
Oregon avenue to T street, d. l., 1891.
G street N., d. l., 1892.
P to Q street, d. l., 1892, Repl.
Riggs to S street, d. l., 1892.
Riggs to S street N., d. l., 1893.
Riggs to S street N., d. l., 1894.
P to Q street N., d. l., 1894, Repl.
Oregon avenue to S street, d. l., 1894.
California to Wyoming ave (basins), d. l., 1895.
Columbia road (basins), d. l., 1895.
Columbia road and Adams street, d. l., 1896.
Columbia road and Cincinnati street, d. l., 1896.
L to M street N., d. l., 1896, Repl.
K to L street, d. l., 1896, Repl.
Riggs place (basin), NW. corner, d. l., 1897.
M street N., NW. corner (basin), d. l., 1897.

Nineteenth street W.

H st. to Pennsylvania ave., May 16, 1867 (C. W.).
G to H street, November 7, 1867 (C. W.).
K street to Dupont Circle, No. 294 (B. P. W.).
F to G street N., No. 408 (B. P. W.).
I to K street N., No. 493 (B. P. W.).
Dupont Circle, from southward, No. 672 (B. P. W.).
P to Q street, east side, No. 677 (B. P. W.).
P street N. (basin), No. 849 (B. P. W.).
Q street (basin), No. 849 (B. P. W.).
Q street to Boundary, No. 849) (B. P. W.).
L to M street N., No. 1797 (Commrs.).
M street (automatic siphon) No. 1913 (Commrs.).
M to N street N., west side, d. l., 1879.
Columbia road, crossing, d. l., 1881.
R to S street N., d. l., 1884.
Pennsylvania avenue to I street, d. l., 1888.
R street, crossing, d. l., 1887, Repl.
R to S street, d. l., 1889.
Florida to California avenue, d. l., 1890.
S to Cedar street, d. l., 1890.
R to S street, d. l., 1890.
Q to R street, d. l., 1891, Repl.
N to O street, d. l., 1892, Repl.
Cedar street, d. l., 1893.
S to T street, d. l., 1893.
M to N street, d. l., 1895, Repl.
E to F street, d. l., 1896, Repl.
B street SE. corner (basin), d. l., 1896.
Q street (automatic siphon), southeast corner, d. l., 1896.
Howard avenue to Piney Branch, d. l., 1897.
Ingleside terrace, d. l., 1897.
M street, crossing, d. l., 1897.
R to S street (automatic siphon), d. l., 1897.

Twentieth street W.

Pennsylvania avenue to canal, June 11, 1868 (C. W.), not constructed.
I street to canal, July 12, 1869 (C. W.), not constructed.
L to M street, No. 405 (P. B. W.).
Pennsylvania ave. to E st., No. 408 (B. P. W.).
L to N street, No. 487 (B. P. W.).
E street to Virginia avenue, No. 744 (B. P. W.).
Massachusetts to Connecticut avenue, No. 849 (B. P. W.).
R to S street N., No. 849 (B. P. W.).
New York avenue to F street, No. 939 (B. P. W.).
S street to Florida avenue, No 1050 (B. P. W.).
M street N., crossing, No. 5 (Commrs.).
Virginia avenue, No. 587 (Commrs.).
S street (basin), No. 1171 (Commrs.).
L st. N. (automatic siphon), No. 1913 (Commrs.).
K to L street N., No. 2206 (Commrs.).
Woodley road to Kalorama avenue, No. 2394 (Commrs.).
O to P street, d. l., 1883.
Massachusetts ave. to Q st., east side, d. l., 1883.
Massachusetts ave. to O st., east side, d. l., 1880.
Florida avenue, d. l., 1886.
N street, d. l., 1886.
N to O street, d. l., 1887.
O to P street, d. l., 1888, Repl.
R to S street, d. l., 1888.
New Hampshire avenue to O street, d. l., 1890.
R to S street, d. l., 1890.
Massachusetts avenue to Q street, d. l., 1891.
E street to Virginia avenue, d. l., 1894, Repl.
L to M street, d. l., 1894.
O st. to Massachusetts ave. (basins) d. l., 1895.
P street, automatic siphon, d. l., 1895.
M street, crossing, d. l., 1897.
G to H street, d. l., 1897.
F to G street, d. l., 1897, Repl.
H to I street, d. l., 1897.
H street to Pennsylvania avenue, d. l., 1897.

Twenty-first street W.

G to H street, September 13, 1869 (C. W.).
L to N street, May 3, 1871 (C. W.).
B to D street, No. 400 (B. P. W. & C.).
Pennsylvania avenue to E st., No. 408 (B. P. W.).
K to L street, No. 496 (B. P. W.).
Pennsylvania avenue to K st., No. 506 (B. P. W.).
L to M street, No. 525 (B. P. W.).
New Hampshire ave. to N st., No. 615 (B. P. W.).
E street to Virginia avenue, No. 744 (B. P. W.).
N street (basin), No. 916 (B. P. W. & C.).
G to H street N., No. 939 (B. P. W.).
K to L street, No. 1034 (B. P. W. & C.).
K to L street, No. 5 (Commrs.).
O street (basin), No. 728 (Commrs.).
Q street (basin), No. 728 (Commrs.).
P street (basins), No. 826 (Commrs.).
R to S street, No. 1468 (Commrs.).
O street, crossing, No. 1468 (Commrs.).
Florida avenue, automatic siphon, No. 1913 (Commrs.).
K to L street, No. 2206 (Commrs.).
O to P street, east side, d. l., 1878.
L to M street, west side, d. l., 1877.
N to O street, east side, d. l., 1879.
O to P street, east side, d. l., 1881.
Q to R street, east side d. l., 1882.
P to Q street, d. l., 1882.
K to L street, d. l., 1883.
M st. to New Hampshire ave., east side, d. l., 1883.
Q to R street, east side, d. l., 1883.
New Hampshire avenue to N street, d. l., 1887.
R street to Florida avenue, d. l., 1888.
Q to R street, d. l., 1887.
O street to Massachusetts avenue, d. l., 1889.
N to O street, d. l., 1892.
N to O street, d. l., 1893.
N to O street, d. l., 1894.
R street to Florida avenue, d. l., 1894.
C street to Virginia avenue, d. l., 1895, Repl.
Massachusetts ave., automatic siphon, d. l., 1895.
O to P street, d. l., 1896, Repl.
R street N. (basin), northwest corner, d. l., 1896.

[1] Original sewer constructed under contract with B. P. W.

N to O street, d. l., 1897.
F to G street, d. l., 1897.
H to I street, d. l., 1897.

Twenty-second street W.

H to I street, September 13, 1869 (C. W.).
E st. to Pennsylvania ave., No. 348 (B. P. W.).
O to P street, No. 517 (B. P. W.).
P street to Massachusetts avenue, east side, No. 654 (B. P. W.).
L to M street, No. 729 (B. P. W.).
Virginia avenue to G street, No. 939 (B. P. W.).
M to N street, No. 380 (Commrs.).
Virginia avenue to E street, No. 589 (Commrs.).
N street (basin), No. 728 (Commrs.).
L to M street, No. 730 (Commrs.).
P street (basins), No. 826 (Commrs.).
P street (basin), No. 1171 (Commrs.).
K to L street, No. 1195 (Commrs.).
Q street (basin), No. 1473 (Commrs.).
Virginia ave. to D street, No. 1723 (Commrs.).
G st., automatic siphon, No. 1913 (Commrs.).
C to Water street, No. 2182 (Commrs.).
New Hampshire avenue to N street (repair Slash Run) No. 2233 (Commrs.).
M to N street, east side, d. l., 1883.
M to N street, d. l., 1885.
M to N street, d. l., 1887.
O street (basins), d. l., 1889.
K to L street, d. l., 1889.
Massachusetts avenue, d. l., 1890.
N to O street, d. l., 1890.
M to N street, d. l., 1891.
K to L street, d. l., 1892.
Massachusetts avenue to R street, d. l., 1892.
O street, d. l., 1893.
N to O street, d. l., 1893.
K to L street, d. l., 1894.
M to N street, d. l., 1895.
New York avenue to D street, d. l., 1895.
K to L street, d. l., 1896.
P to Q street, d. l., 1897.
New Hampshire avenue to N street (repair Slash Run), d. l., 1897.

Twenty-third street W.

G street to Washington circle, laterals, No. 403 (B. P. W.).
L to M street, No. 776 (B. P. W.).
L to M street, No. 589 (Commrs.).
H to I street, No. 590 (Commrs.).
L st. to Pennsylvania ave., east side, d. l., 1878.
L st. to Washington circle, east side, d. l., 1879.
G to H street, west side, d. l., 1883.
G to H street, d. l., 1885.
F to G street, d. l., 1886.
H to I street, d. l., 1885.
Sheridan circle to Rock Creek, d. l., 1891.
F to G street, d. l., 1892.
New York ave. to Upper Water st., d. l., 1894.
M to N street, d. l., 1895.
L street to Washington circle, d. l., 1896.
Virginia avenue, SE. corner (basin), d. l., 1896.

Twenty-fourth street W.

Pennsylvania ave. to M st., No. 461 (B. P. W.).
L to M street, No. 829 (B. P. W.).
Virginia avenue to E street, No. 73 (Commrs.).
M to N street, No. 1723 (Commrs.).
I street, NE. and SE. corners (basins), d. l., 1897.
K to I street, d. l., 1897.

Twenty-fifth street W.

H to I street, No. 589 (Commrs.).
M to N street, No. 954 (Commrs.).
I to K street, d. l., 1884.
M to N street, d. l., 1892.
M to N street (basin), d. l., 1893.
I to K street, d. l., 1894.
M to N street, d. l., 1894.
M st. NE. and SE. corners (basins), d. l., 1897.

Twenty-sixth street W.

Virginia avenue to I street, No. 1723 (Commrs.).
Pennsylvania avenue to M street, d. l., 1876.
Pennsylvania ave. to M st., east side, d. l., 1879.
Virginia avenue to I street, d. l., 1887.
P to Q street, d. l., 1889.
D to E street, d. l., 1894.
H to I street, d. l., 1894.
D to Upper Water street, d. l., 1894.
P to East street, d. l., 1894.
D to E street, d. l., 1895.
E to F street (basins), d. l., 1895.
O to P street, d. l., 1897.

Twenty-seventh street W.

K to L street, No 899 (B. P. W.).
Poplar to O street, No. 954 (Commrs.).
Olive to N street, No. 1566 (Commrs.)
M to Olive street, No. 2220 (Commrs.).
Olive street, d. l., 1889.
M to Olive street, d. l., 1892.
O street N., d. l., 1893.
N to Dumbarton street, d. l., 1893.
I street to Virginia avenue, d. l., 1894.
Poplar to P street, d. l., 1894.
O to Dumbarton street, d. l., 1897.
I to K street N.,[1] d. l., 1897, Repl.

Twenty-eighth street W.

Q to U street (automatic siphon), No. 913 (Commrs.).
Q to Road street, d. l., 1888.
Dumbarton to O street, d. l., 1893.
P to Q street, d. l., 1893.
O street (basin), d. l., 1894.
Olive to N street, d. l., 1894.
Dumbarton street, d. l., 1894.
Dumbarton to O st., both sides, d. l., 1895, Repl.
Pennsylvania avenue to Chesapeake and Ohio Canal, d. l., 1896.

Twenty-ninth street W.

P to Q street, No 533 (B. P. W.).
Olive to Dumbarton street, No. 1900 (Commrs.).
P to Q street, d. l., 1877.
P to U street, center of street, d. l., 1880.
Water street, d. l., 1886.
Q to U street, d. l., 1887.
Dumbarton street (basin), d. l., 1888.
K to M street, d. l., 1887.
Pennsylvania avenue to Chesapeake and Ohio Canal, d. l., 1894.

Thirtieth street W.

M to N street, No. 758 (B. P. W.).
M to Water street, No. 799 (B. P. W. & C.).
K street to Chesapeake and Ohio Canal, No. 860 (B. P. W.).
O street (basin), No. 1064 (B. P. W.).
P to Grace street, No. 242 (Commrs.).
P to Q street, No. 479 (Commrs.).
Q to Cambridge street, No. 1716 (Commrs.).
O to P street, d. l., 1879.
P street, crossing, d. l., 1880.
N to Dumbarton street, d. l., 1889.
O to Dumbarton street, d. l., 1890.
O to Dumbarton street, d. l., 1892.
N to Dumbarton street, d. l., 1893.
Chesapeake and Ohio Canal to M street, d. l., 1894, Repl.
Chesapeake and Ohio Canal to M street (basin), d. l., 1896.

Thirty-first street W.

M to N street, No. 758 (B. P. W.).
N to P street, No. 859 (B. P. W.).
O to Q street, No. 591 (Commrs.).
M to N street, No 631 (Commrs.).
O to U street, No. 631 (Commrs.).
N to P street, No. 728 (Commrs.).
N to Dumbarton street, west side, d. l., 1880.

[1] Original sewer constructed under contract with B. P. W.

K to M street, d. l., 1888.
Q to U street, d. l., 1890.
Q to U street, d. l., 1891.
M to N street, d. l., 1890.
U to V street, d. l., 1891.
M st. to Chesapeake and Ohio Canal, d. l., 1893.
Chesapeake and Ohio Canal to Water street, d. l., 1894, Repl.
Chesapeake and Ohio Canal to M street, d. l., 1894, Repl.
Chesapeake and Ohio Canal to K st., d. l., 1894.
O to P street N., d. l., 1894.

Thirty-second street W.

M to P street, No. 553 (B. P. W.).
M to Prospect street (basin), No. 701 (B. P. W).
P street (basin), No. 1026 (B. P. W.).
S to T street, No. 1566 (Commrs.).
Thirty-third street, automatic siphon, No. 1913 (Commrs.).
R to Thirty-third street, west side, d. l., 1878.
U street, d. l., 1891.
Q street N., southwest corner (basin), d. l., 1895.
M to N street (basins), d. l., 1895.

Thirty-third street W.

O to P street, No. 418 (B. P. W.).
O street (basins), No. 728 (Commrs.).
N to P street, No. 728 (Commrs.).
P to R street, No. 820 (Commrs.).
R to T street, No. 956 (Commrs.).
Q street (basins), No. 957 (Commrs.).
R street (basin), No. 1256 (Commrs.).
M st. to Chesapeake and Ohio Canal, d. l., 1892.
Q street N., northeast corner (basin), d. l., 1895.
M st. to Chesapeake and Ohio Canal, d. l., 1896.

Thirty-fourth street W.

Prospect to M street, No. 1270 (Commrs.).
Prospect to N street, No. 828 (Commrs.).
Q street, N. (basin), No. 1256 (Commrs.).
O to P street, No. 1270 (Commrs.).
P to Q street, No. 1723 (Commrs.).
O to P street, west side, d. l., 1876.
N to O street, d. l., 1890.
M to N street, d. l., 1890.
U to Thirty-second street, d. l., 1891.
N to O street, d. l., 1894.
R to S street, d. l., 1895.
P to Q street, d. l., 1896.
N to O street, d. l., 1896.
Q to R street, d. l., 1897.
N to O street, d. l., 1897.

Thirty-fifth street W.

N to P street, No. 728 (Commrs.).
N street (basins), No. 728 (Commrs.).
O street (basins), No. 728 (Commrs.).
P street (basins), No. 728 (Commrs.).
P to Q street, No. 820 (Commrs.).
N to O street (basins), No. 957 (Commrs.).
Q street (basin), No. 1171 (Commrs.).
Q to S street, No. 1183 (Commrs.).
M to Prospect street, No. 1195 (Commrs.).
T street (basin), No. 1256 (Commrs.).
S to U street, No. 1270 (Commrs.).
Prospect street (automatic siphon), No. 1913 (Commrs.).
U to Madison street, No. 2368 (Commrs.).
O to P street, d. l., 1883.
N to O street, d. l., 1887.
N to O street, d. l., 1890.
U street (basins), d. l., 1891.
Q street, northwest corner (basin), d. l., 1895.
S street, northeast corner (basin), d. l., 1895.
N to O street, d. l., 1897.
T to U street, d. l., 1897.
U to V street, d. l., 1897.
U to W street, d. l., 1897.
U and Thirty-second streets, d. l., 1897.
U to Madison street, d. l., 1897.

Thirty-sixth street W.

Prospect to N street, No. 1270 (Commrs.).
N to O street, No. 1468 (Commrs.).
M to N street, d. l., 1896.

Thirtyseventh street W.

M to N street, No. 1566 (Commrs.).
Prospect st., northeast corner (basin), d. l., 1895.
N street, southwest corner (basin), d. l., 1896.

A street N.

Second street E., to Delaware avenue, October 11 and 24, 1867.
Second to Fourth st. E., No. 811 (B. P. W. & C.).
Eighth to Ninth street E., No. 811 (B. P. W.).
Third to Eighth street E., No. 589 (Commrs.).
Third to Fourth street, replacing, No. 826 (Commrs.).
Twelfth street to Tennessee avenue E., No. 954 (Commrs.).
Sixth to Seventh street E., north side, d. l., 1877.
Sixth to Seventh street E., south side, d. l., 1878.
Sixth to Seventh street E., north side, d. l., 1882.
Seventh to Eighth street E., south side, d. l. 1884.
Eleventh to Twelfth street E., d. l., 1886.
Seventh to Eighth street E., d. l., 1886.
Third to Fourth street E., d. l., 1889, Repl.
Eighth to Ninth street E., d. l., 1891.
Eleventh to Twelfth street E., d. l., 1891.
Eleventh to Twelfth street E., d. l., 1893.
Fifth to Sixth street E., d. l., 1894.
Sixth to Seventh street E., siphon, d. l., 1894.
Second to Third street E., d. l., 1895, Repl.
Eighth, crossing, south side E., d. l., 1896, Repl.

A street S.

First to Second street E., No. 653 (B. P. W.).
Third to Sixth street E., north side, No. 811 (B. P. W.).
Sixth to Seventh st. E., No. 811 (B. P. W. & C.).
Seventh street E. (basins), No. 826 (Commrs.).
Eleventh to Twelfth st. E., No. 1716 (Commrs.).
Fourteenth to Fifteenth street E., No. 2184 (Commrs.).
Fourteenth street to Massachusetts avenue, No. 2323 (Commrs.).
Eighth to Ninth street E., d. l., 1876.
Eighth to Ninth street E., d. l., 1885.
Eighth to Ninth street E., d. l., 1886.
Eighth to Ninth street E., d. l., 1887.
North Carolina avenue E., d. l., 1889.
Ninth street E., d. l., 1889.
Tenth street E., d. l., 1889.
Ninth to Tenth street E., d. l., 1889.
Seventh to Ninth street E. (basins), d. l., 1894.
Fourteenth street E. (basins), d. l., 1895.
Eighth to Ninth street E., d. l., 1896.
Third to Fourth street E., d. l., 1896, Repl.
Seventh to Eighth street E., d. l., 1897.

B street N.

Seventeenth street W., No. 330 (B. P. W. & C.).
Seventh to Seventeenth st. W., No. 330 (B. P. W.).
Sixth street W., crossing, No. 342 (B. P. W.).
First to Second street E., north side, No. 512 (B. P. W.).
Second to Third street E., No. 811 (B. P. W. & C.).
Seventeenth street W., No. 888 (B. P. W.).
Third to Fourth street E., No. 901 (B. P. W.).
Third to Fourth street E., No. 1066 (B. P. W.).
Seventh to Tenth street E., No. 589 (Commrs.).
Tenth to Eleventh street E., No. 593 (Commrs.).
Seventeenth street to Virginia avenue W., No. 601 (Commrs.).
Fourth to Sixth street E., No. 631 (Commrs.).
Twelfth street to Tennessee avenue, No. 954 (Commrs.).
Thirteenth to Fourteenth street E., No. 1270 (Commrs.).
Twelfth street to Tennessee avenue E., No. 1462 (Commrs.).
Eleventh to Twelfth st. E., No. 1566 (Commrs.).
Second street E., siphon, No. 1913 (Commrs.).
Fifteenth street to North Carolina avenue, No. 2225 (Commrs.).
Sixth to Seventh street E., verbal order. 1876.
Delaware avenue to First street E., d. l., 1877.
New Jersey ave. to North Capitol st., d. l., 1878.
First to Second st. E., south side, d. l., 1879.
Fourth to Fifth street E., south side, d. l., 1883.

Sixth to Seventh street E., d. l., 1883.
Ninth to Tenth street W., north side, d. l., 1883.
First to Second street W., d. l., 1885.
Eleventh to Thirteenth street, d. l., 1887.
First to Second street E., d. l., 1888.
North Capitol st. to Delaware ave., d. l., 1888.
North Capitol st. to Delaware ave., d. l., 1889.
North Capitol st. to Delaware ave., d. l., 1887.
Third to Fourth street E., d. l., 1890, Repl.
First street E., crossing, d. l., 1890, Repl.
Eleventh to Twelfth street E., d. l., 1891.
Thirteenth to Fourteenth street E., d. l., 1893.
Tennessee avenue E. (basin), d. l., 1894.
Third to Fourth street E., d. l., 1894, Repl.
North Capitol street to Delaware avenue, siphon, d. l., 1894.
North Capitol street to New Jersey avenue, siphon, d. l., 1894.

B street S.

Tenth to Eleventh street W., No. 885 (B. P. W.).
First to Second street E., No. 231 (B. P. W.).
Fifth to Sixth street E., No. 463 (B. P. W.).
Third to Fifth street E., No. 519 (B. P. W.).
Seventh to Fourteenth st. W., No. 683 (B. P. W.).
South Capitol to First st. W., No. 745 (B. P. W.).
First to Third street W., No. 775 (B. P. W. & C.).
Second to Third street E., No. 829 (B. P. W.).
Fifth to Sixth street E., No. 858X (B. P. W.).
First to Second street E., No. 864 (B. P. W.).
Eleventh street E., crossing, No. 1023 (B. P. W.).
Sixth to Seventh street E., No 5 (Commrs.).
South Capitol street to New Jersey avenue, No. 78 (Commrs.).
Sixth to Seventh street E., No. 730 (Commrs.).
Third to Fourth street E., No. 954 (Commrs.).
Ninth to Tenth street E., No. 594 (Commrs.).
Eleventh to Twelfth st. E., No. 1267 (Commrs.).
Fifth to Sixth street E., No. 1728 (Commrs.).
Sixth to Seventh street E., No. 1797 (Commrs.).
Twelfth street to Kentucky avenue, No. 1797 (Commrs.).
Fourteenth st. W., siphon, No. 1913 (Commrs.).
Nineteenth street E. to Eastern Branch, No. 2007 (Commrs.).
Thirteenth to Fourteenth street E., No. 2323 (Commrs.).
Sixth to Seventh street W., d. l., 1875.
Sixth to Seventh street W., north side, d. l., 1876.
Eleventh to Twelfth st. E., south side, d. l., 1876.
Eleventh to Delaware ave., north side, d. l., 1877.
Sixth to Seventh street E., north side, d. l., 1878.
Thirteen-and-a-half to Fourteenth street W., d. l., 1878.
First to Second street E., d. l., 1883.
Tenth to Eleventh street E., d. l., 1886.
Third to Four-and-a-half st. (basin), d. l., 1888.
Sixth to Seventh street W., d. l., 1889.
Delaware avenue to First street W., d. l., 1888.
Third to Four-and-a-half street W., d. l., 1889.
Sixth street E. (crossing), d. l., 1890.
Eleventh to Twelfth street E., d. l., 1891, Repl.
Delaware avenue to First street W., d. l., 1891.
Sixth to Seventh street E., d. l., 1894.
Tenth to Eleventh street E., d. l., 1894.
Eighth to Ninth street E., d. l., 1894.
Third to Fourth street E., d. l., 1895, Repl.
Sixth to Seventh street E., d. l., 1895.
Third to Fourth street E., d. l., 1896, Repl.
Fifteenth to Sixteenth street E., d. l., 1896.
Thirteenth to Fourteenth street E., d. l., 1897.
Sixteenth to Seventeenth street E., d. l., 1897.

C street N.

Third to Sixth st. W., March 23, 1854 (C. W.).
Four-and-a-half to Sixth street, August 16, 1860, May 29, and October 1, 1863 (C. W.).
Second street E. to Tiber Creek, both sides, No. 83 (B. P. W.).
Fourth to Fifth street E., No. 550 (B. P. W.).
Third to Four-and-a-half street W., No. 559 (B. P. W. & C.).
Thirteenth to Thirteen-and-a-half street, No. 616 (B. P. W.).
Second to Third street E., No. 858 (B. P. W.).
Fourth to Fifth street E., No. 254 (Commrs.).
Third to Fourth street E., No. 569 (Commrs.).
Sixth to Seventh street E., No. 589 (Commrs.).
Seventh street E. (basin), No. 826 (Commrs.).
Eighth street E. (basin), No. 826 (Commrs.).
Tenth street E. (basins), No. 826 (Commrs.).
Eighth to Tenth street E., No. 954 (Commrs.).
Second to Third street W., No. 954 (Commrs.).
Eighth to Ninth street E., No. 1195 (Commrs.).
Thirteenth street to Tennessee avenue E., No. 1270 (Commrs.).
First street W. (basin), No. 1473 (Commrs.).
New Jersey ave. W. (basin), No. 1473 (Commrs.).
Arthur Place W. (basin), No. 1473 (Commrs.).
Eleventh street E. (basin), No. 1473 (Commrs.).
New Jersey avenue to First street W., No. 1480 (Commrs.).
Sixth to Seventh street W., replacing, No. 1897 (Commrs.).
Second to Third st. W., north side, d. l., 1880.
Fifth to Sixth streets E., d. l., 1881.
Seventh to Eighth street E., d. l., 1881.
Fifth to Sixth street W., south side, d. l., 1882.
Sixth to Seventh st. W., north side, d. l., 1882.
Seventh to Eighth street E., d. l., 1886.
Fifth to Sixth street E., d. l., 1889.
Second to Third st. E., both sides, d. l., 1889, Repl.
Seventh to Eighth street E., d. l., 1889.
Fifth to Sixth street E., d. l., 1889.
Ninth to Tenth street E. (basin), d. l., 1890.
Seventh to Eighth street E., d. l., 1890.
Second to Third street W., d. l., 1890.
Tenth to Eleventh street E., d. l., 1890.
Second to Third street W., d. l., 1891.
Seventh to Eighth street E., d. l., 1891.
First street to Arthur place W., d. l., 1891.
New Jersey avenue W., d. l., 1892.
Arthur place W., d. l., 1892.
Fifth to Sixth street E., d. l., 1893.
Fourth to Fifth street E., d. l., 1893.
Seventh to Eighth street E., d. l., 1894.
Ninth to Tenth street E., d. l., 1894.
Fourteenth to Fifteenth street W., d. l., 1895.
Tenth to Eleventh street E., d. l., 1895.
Tennessee ave. to Thirteenth st. E., d. l., 1896.
Fourteenth to Fifteenth street E., d. l., 1896.
Fourteenth to Warren street E., d. l., 1896.
Thirteenth street E., crossing, d. l., 1896.
Eleventh to Twelfth street E., d. l., 1897.

C street S.

New Jersey avenue to First street E., No. 88 (B. P. W.).
Third to Fourth st. E., No. 264 (B. P. W. & C.).
Sixth street W. to canal, No. 376 (B. P. W.).
South Capitol to Second street E., No. 413 (B. P. W. & C.).
Sixth to Seventh street W., No. 557 (B. P. W.).
Third to Four-and-a-half street W., No. 559 (B. P. W.).
New Jersey avenue to South Capitol street, No. 686 (B. P. W.).
Seventh to Eighth street W., No. 713 (B. P. W.).
Thirteen-and-a-half to Fourteenth street, No. 808 (B. P. W.).
Seventh to Eighth street E., No. 835 (B. P. W.).
Tenth to Virginia avenue E., No. 854 (B. P. W. & C.).
Thirteenth to Thirteen-and-a-half street, No. 879 (B. P. W. & C.).
Tenth to Eleventh street W., No. 1034 (B. P. W. & C.).
Canal to Ninth street W., No. 386 (Commrs.).
Seventh to Ninth street E., No. 589 (Commrs.).
Fifth street E., crossing, No. 590 (Commrs.).
Sixth to Seventh street E., No. 590 (Commrs.).
Sixth street E., crossing, No. 593 (Commrs.).
Second to Third street E., No. 631 (Commrs.).
Seventh street E. (basin), No. 826 (Commrs.).
First street E. (basin) No. 826 (Commrs.).
Second street W. (basins), No. 826 (Commrs.).
First street W. (basins), No. 826 (Commrs.).
Ninth street E. (basins), No. 1171 (Commrs.).
Tenth street E. (basins), No. 1171 (Commrs.).
Eleventh street E., (basin) No. 1171 (Commrs.).
Twelfth street E. (basin), No. 1171 (Commrs.).
Fourteenth to Fifteenth street W., No. 1468 (Commrs.).
Twelfth to Thirteeth street W., No. 1468 (Commrs.).
Third to Fourth street E., No. 1723 (Commrs.).
Ninth to Tenth street E., replacing, No. 1896 (Commrs.).

Third street to James Creek Canal W., No. 1896 (Commrs.).
Ninth to Tenth street W., replacing, No. 1897 (Commrs.).
Third street to Canal W., No. 1900 (Commrs.).
First to Second street E., siphon, No. 1913 (Commrs.).
Tenth to Eleventh street W., d. 1., 1876.
Twelfth to Thirteenth street E., north side, d. 1., 1876.
Ninth to Tenth street E., d. 1., 1877.
First to Second street E., south side, d. 1., 1878.
Eighth to Ninth street E., north side, d. 1., 1879.
Twelfth to Thirteenth street W., north side, d. 1., 1879.
Ninth to Tenth street W., d. 1., 1880.
Seventh to Eighth street W., south side, d. 1., 1881.
Ninth to Tenth st. W., north side, d. 1., 1882.
Sixth to Seventh street E., d. 1., 1884.
Tenth to Eleventh street E., d. 1., 1885.
Delaware avenue W., crossing, d. 1., 1885.
First to Second street E., d. 1., 1885.
Ninth to Tenth street E., d. 1., 1887.
Sixth to Seventh street E., d. 1., 1887.
Twelfth street E., crossing, d. 1., 1888.
Thirteen-and-a-half and Fourteenth streets, d. 1., 1888, Repl.
Fourteenth to Fifteenth street W., d. 1., 1888.
Thirteen-and-a-half to Fourteenth street, d. 1., 1889, Repl.
Second to Third street E., d. 1., 1889.
Twelfth to Thirteenth street W., d. 1., 1889.
Eleventh to Twelfth street E., d. 1., 1890.
Twelfth to Thirteenth street W., d. 1., 1890.
Fourteenth street W., crossing, d. 1., 1891.
Second to Third street E., d. 1., 1891, Repl.
Thirteenth to Thirteen-and-a-half st., d. 1., 1892.
Third to Fourth street E., d. 1., 1893.
Tenth to Eleventh street W., d. 1., 1894, Repl.
Canal to Delaware avenue W., d. 1., 1894.
Third to Fourth street E., d. 1., 1894.
Ninth to Tenth street E., d. 1., 1895.
South Capitol st. to New Jersey ave., d. 1., 1895.
Fourteenth to Fifteenth street E., d. 1., 1895.
Fourteenth st. to Kentucky ave. E., d. 1., 1895.
Thirteenth st. to Kentucky ave. E., d. 1., 1895.
Eleventh to Twelfth street E., d. 1., 1896.
First street E. to New Jersey avenue, d. 1., 1897.
Eleventh to Twelfth street E., d. 1., 1897.

D street N.

Sixth to Seventh street W., May 23, 1863 (C. W.).
Fifth to Sixth st., and from City Hall to SW. corner of reservation, July 27, 1865 (C. W.).
Sixth to Seventh street, October 26, 1865 (C. W.).
New Jersey avenue to Second street W., November 10, 1865 (C. W.).
Second to Third street W., May 14, 1866, and May 10, 1867 (C. W.).
Fifth to Sixth st. W., November 15, 1870 (C. W.).
Second street E., crossing, No. 243 (B. P. W.).
Sixth to Eleventh street W., No. 292 (B. P. W.).
Ninth to Tenth street W., No. 387 (B. P. W.).
Thirteenth to Fifteenth street W., both sides, No. 516 (B. P. W.).
Twelfth to Thirteenth st. W., No. 728 (B. P. W.).
Seventh street E., crossing, No. 811 (B. P. W.).
First street W., to First street E., No. 1047 (B. P. W. & C.).
Seventeenth to Eighteenth street W., No. 91 (Commrs.).
Fourteenth to Fifteenth street W., No. 730 (Commrs.).
Fifth to Seventh street E., No. 826 (Commrs.).
Delaware ave. to First st. E., No. 956 (Commrs.).
First to Second street E., No. 1169 (Commrs.).
First street E., crossing, No. 1183 (Commrs.).
Eighth street E. (basin), No. 1256 (Commrs.).
Ninth street E. (basin), No. 1256 (Commrs.).
Fourth to Fifth street E., No. 1468 (Commrs.).
Ninth street E., No. 1473 (Commrs.).
Twenty-first to Twenty-second street W., No. 1723 (Commrs.).
Eleventh to Twelfth st. E., No. 1797 (Commrs.).
Seventeenth to Eighteenth st. W., d. 1., 1876.
Fourth to Fifth street E., south side, d. 1., 1881.
Eighth street E., crossing, d. 1., 1882.
Seventh to Eighth st. E., south side, d. 1., 1883.
Third to Fourth street W., d. 1., 1888.
Third to Fourth street E., d. 1., 1889.
Fifth to Sixth street E., d. 1., 1889.
Eighth to Ninth street E., d. 1., 1890.
Eighth to Ninth street W., d. 1., 1890, Repl.
Seventh to Eighth street E., d. 1., 1890.
Seventh to Eighth street E., d. 1., 1893.
Second st. E. to Massachusetts ave., d. 1., 1894.
Twenty-sixth street W. to river, d. 1., 1894.
Thirteenth to Fourteenth street E., d. 1., 1895.
Ninth to Tenth street W., d. 1., 1895.
Twenty-first to Twenty-second st. W., d. 1., 1895.
Second to Third street W., d. 1., 1895.
Twelfth to Thirteenth street E., d. 1., 1895.
First street W. (basin), d. 1., 1895.
Thirteenth to Fourteenth street E., d. 1., 1895.
Thirteenth street E. (basin), d. 1., 1895.
Twenty-sixth st. W. to river (basin), d. 1., 1895.
Eighth to Ninth street W. (basins), d. 1., 1895.
Tenth to Eleventh street E., d. 1., 1896.
Seventeenth to Eighteenth street W., d. 1., 1896.
Third to Fourth street E., d. 1., 1896.
Seventh to Eighth street E., d. 1., 1897.
Sixth to Seventh street E., d. 1., 1897.

D street S.

Second street E., August 21, 1859 (C. W.).
North Carolina avenue to Second street, November 29, 1869 (C. W.).
Four-and-a-half to Sixth street W., May 24, 1871, not constructed (C. W.).
South Capitol to Fifth st. E., No. 65 (B. P. W.).
Second street E., No. 264 (B. P. W.).
Third to Sixth street E., No. 264 (B. P. W.).
Twelfth to Thirteenth st. W., No. 333 (B. P. W.).
Third to Four-and-a-half street W., No. 376 (B. P. W.).
Seventh to Fourteenth st. W., No. 808 (B. P. W.).
Sixth to Seventh street W., No. 894 (B. P. W.).
Seventh to Eighth street W., No. 925 (B. P. W.).
Second to Third st. E., No. 1034 (B. P. W. & C.).
Second to Third street E., No. 1072 (B. P. W.).
Seventh to Eighth street E., No. 1072 (B. P. W.).
Sixth to Seventh street E., north side, No. 1084 (B. P. W.).
Second to Third street E., No. 5 (Commrs.).
Four-and-a-half street to Virginia avenue, No. 386 (Commrs.).
Delaware avenue to First street W., No. 479 (Commrs.).
Second to Third street W., No. 589 (Commrs.).
Eighth to Ninth street E., No. 589 (Commrs.).
First to Second street W., No. 591 (Commrs.).
First to Second street W., No. 631 (Commrs.).
Sixth to Seventh street W., No. 631 (Commrs.).
Eighth street W., crossing, No. 631 (Commrs.).
Sixth to Ninth street W., No. 730 (Commrs.).
Ninth to Tenth street E., No. 730 (Commrs.).
Third to Four-and-a-half street W., No. 954 (Commrs.).
Twelfth to Fourteenth street E., No. 1270 (Commrs.).
Third to Four-and-a-half street, replacing, No. 1750 (Commrs.).
Seventh street W., siphon, No. 1913 (Commrs.).
Sixth to Seventh street E., south side, d. 1., 1878.
Ninth to Tenth street E., south side, d. 1., 1878.
Tenth to Eleventh st. W., south side, d. 1., 1882.
Sixth to Seventh street E., d. 1., 1887.
South Capitol street, d. 1., 1888.
Eleventh to Twelfth street E., d. 1., 1890.
Delaware avenue, crossing, d. 1., 1890.
South Capitol st. to Delaware ave., d. 1., 1891.
Eighth to Ninth street E., d. 1., 1891.
Fifth to Sixth street E., d. 1., 1892.
Second to Third street W., d. 1., 1893.
Twelfth street E., crossing, d. 1., 1894.
Thirteen-and-a-half to Fourteenth street, d. 1., 1894, Repl.
Tenth to Eleventh street E., d. 1., 1894.
Tenth to Eleventh street E., d. 1., 1895.
Eighth to Ninth street E., d. 1., 1895.
New Jersey avenue to First street E., d. 1., 1896.
Thirteenth to Fourteenth street E., d. 1., 1896.
South Capitol street, intersection of, d. 1., 1896.

E street N.

Sixth to Seventh st. W., May 23, 1863 (C. W.).
Second to Third street W., July 8, 1865 (C. W.).

Twelfth to Thirteenth street W., October 6, 1865 (C. W.).
Sixth to Seventh street W., December 8 and 16, 1865 (C. W.).
Thirteenth to Fourteenth street W., May 16, 1866 (C. W.).
Second street W. to Tiber Creek, May 23, 1867 (C. W.).
Twelfth to Thirteenth street W., November 21, 1868 (C. W.).
Tenth to Thirteenth st. W., No. 75 (B. P. W.).
Thirteenth to Fourteenth street W., No. 222 (B. P. W.).
Ninth to Tenth street W., No. 292 (B. P. W.).
Seventh to Ninth street W., No. 346 (B. P. W.).
Second to Fourth st. W., No. 371 (B. P. W.).
Eighteenth to Twenty-second street W., No. 374 (B. P. W.).
Fourteenth to Fifteenth street W., south side, No. 516 (B. P. W.).
Thirteenth to Fourteenth street, south side, No. 616 (B. P. W.).
Fifth to Seventh street W., No. 735 (B. P. W.).
Seventeenth to Eighteenth street W., No. 797 (B. P. W.).
North Capitol to First st. E., No. 1047 (B. P. W.).
Twenty-third to Twenty-fourth street W., No. 73 (Commrs.).
Twenty-second to Twenty-third street W., No. 589 (Commrs.).
Fourth to Fifth street E., No. 590 (Commrs.).
Second to Third street E., No. 631 (Commrs.).
Third to Fourth street W., No. 730 (Commrs.).
Nineteenth to Twentieth street W., No. 730 (Commrs.).
North Capitol street to New Jersey avenue, No. 826 (Commrs.).
North Capitol to First street W. (basins), No. 826 (Commrs.).
Eighteenth to Nineteenth street W., No. 954 (Commrs.).
Thirteenth to Fourteenth street W. (basins), No. 957 (Commrs.).
Seventeenth to Eighteenth street W., No. 1468 (Commrs.).
Ninth to Tenth street E., No. 1723 (Commrs.).
Thirteenth street to Tennessee avenue E., No. 2206 (Commrs.).
First to Second street E., d. l., 1877.
North Capitol street, d. l., 1879.
Fifteenth street W. (crossing), d. l., 1884.
Eighteenth to Nineteenth street W., south side, d. l., 1885.
Twentieth to Twenty-first street W., north side, d. l., 1885.
Delaware avenue (basin), d. l., 1885.
Fifth to Sixth street E., d. l., 1886.
Third to Fourth street E., d. l., 1886.
Twentieth to Twenty-first street W., d. l., 1887.
Eighth to Ninth street E., d. l., 1887.
Twentieth to Twenty-first street W., d. l., 1888.
Twenty-second to Twenty-third st. W., d. l., 1889.
Third to Fourth street E., d. l., 1889.
Sixth to Seventh street E., d. l., 1889.
Eighteenth to Nineteenth street W., d. l., 1889.
Twenty-second to Twenty-third st. W., d. l., 1889.
Eighth to Ninth street E., d. l., 1890.
Third to Fourth street E., d. l., 1890.
Third to Fourth street E., d. l., 1891.
Sixth to Seventh street E., d. l., 1891.
Second to Third street E., d. l., 1892.
Thirteenth to Fourteenth street W., d. l., 1892.
Fifth to Sixth street E., d. l., 1892.
North Capitol to First street W., d. l., 1893.
Seventeenth to Eighteenth street W., d. l., 1893.
Twenty-sixth street W. to river, d. l., 1894.
Twenty-first to Twenty-second st. W., d. l., 1894.
Twentieth to Twenty-first street W., d. l., 1892.
Twentieth to Twenty-first street W., d. l., 1894.
Eighth to Ninth street E., d. l., 1894.
Third to Fourth street E., d. l., 1895.
Twenty-sixth street to river, d. l., 1895.
Eleventh to Twelfth street E., d. l., 1895.
Seventh to Eighth street E., d. l., 1897.
Fifth to Sixth street E., d. l., 1897.

E street S.

Delaware avenue to South Capitol street W., October 27, 1869 (C. W.).
Second to Third street E., No. 264 (B. P. W.).
Four-and-a-half to Sixth st. W., No. 369 (B. P. W.).
Third to Four-and-a-half st. W., No. 376 (B. P. W.).
Four-and-a-half to Sixth street, north side, No. 589 (B. P. W.).
Fourth street, crossing, No. 833 (B. P. W.).
Seventh street, crossing, No. 1072 (B. P. W.).
Four-and-a-half and Sixth streets, No. 431 (Commrs.).
Second to Third street W., No. 589 (Commrs.).
Delaware avenue to South Capitol street No. 593 (Commrs.).
Third to Sixth street E., No. 631 (Commrs.).
Delaware avenue to Second street W., No. 631 (Commrs.).
Delaware avenue (basin), No. 728 (Commrs.).
Sixth to Seventh street E., No. 730 (Commrs.).
Seventh to Eighth street W., No. 826 (Commrs.).
Seventh street W. (basins), No. 826 (Commrs.).
Thirteenth st. W. (basin), No. 826 (Commrs.).
Thirteen-and-a-half st. W., No. 826 (Commrs.).
South Capitol street to New Jersey avenue, No. 952 (Commrs.).
Ninth to Tenth street W., No. 954 (Commrs.).
Tenth to Eleventh st. E., No. 954 (Commrs.).
Twelfth to Thirteenth street E., No. 1270 (Commrs.).
Seventh to Eighth st. E., No. 1468 (Commrs.).
Twelfth to Thirteenth street E., No. 1468 (Commrs.).
First to Second street E., No. 1715 (Commrs.).
Thirteenth to Fourteenth street E., No. 1797 (Commrs.).
Thirteenth st. E. (siphon), No. 1913 (Commrs.).
Third to Four-and-a-half street W., No. 2361 (Commrs.).
Tenth to Eleventh st. W., north side, d. l., 1876.
Four-and-a-half to Sixth street W., south side, d. l., 1876.
Sixth to Seventh st. W., south side, d. l., 1877.
Seventh to Eighth st. E., north side, d. l., 1878.
Sixth to Seventh st. E., south side, d. l., 1879.
Eighth to Ninth st. E., south side, d. l., 1882.
Eleventh to Twelfth street E., d. l., 1886.
Second to Third street E., d. l., 1886.
Four-and-a-half to Sixth street W., d. l., 1887.
Ninth to Tenth street W., d. l., 1887.
Eighth to Ninth street E., d. l., 1887.
Sixth to Seventh street E., d. l., 1889.
Sixth to Seventh street W. (basin), d. l., 1890.
Twelfth to Thirteenth street E., d. l., 1890.
Thirteenth to Thirteen-and-a-half st., d. l., 1890.
Eighth to Ninth street E., d. l., 1892.
Ninth to Tenth street W., d. l., 1893.
Third to Fourth street E., d. l., 1893.
Ninth to Tenth street E., d. l., 1894.
Six-and-a-half to Seventh street W., d. l., 1895.
Eighth to Ninth street W., d. l., 1895.
Thirteenth to Fourteenth street E., d. l., 1896.
Eighth to Ninth street W., d. l., 1897.
Thirteenth to Fourteenth street E., d. l., 1897.

F street N.

Fourteenth to Fifteenth street W., March 31, 1868 (C. W.).
Eighteenth to Twenty-second street, November 2, 1869 (C. W.), not constructed.
Eleventh to Twelfth st. W., No. 351 (B. P. W.).
Second to Fourth street W., No. 371 (B. P. W.).
North Capitol to Fifth st. E., No. 570 (B. P. W.).
Second to Third st. E., No. 702 (B. P. W. & C.).
Fifth to Seventh street W., No. 740 (B. P. W.).
Sixth to Seventh street W., No. 835 (B. P. W.).
First to Second street W., No. 760 (B. P. W.).
First to Second st. W., No. 760 (B. P. W. & C.).
Ninth to Thirteenth st. W., No. 796 (B. P. W.).
Seventh street E., crossing, No. 811 (B. P. W.).
North Capitol street to New Jersey avenue, No. 1040 (B. P. W.).
First to Second street E., No. 51 (Commrs.).
Twenty-third to Twenty-fourth street W., No. 590 (Commrs.).
Third to Fourth street E., No. 600 (Commrs.).
Fourth to Seventh st. E., No. 601 (Commrs.).
North Capitol street, near, No. 728 (Commrs.).
Eighth to Ninth street E., No. 954 (Commrs.).
Ninth to Tenth street E., No. 1169 (Commrs.).
Seventh to Eighth st. E., No. 1183 (Commrs.).

Twenty-sixth to Twenty-seventh street W., No. 1267 (Commrs.).
Twenty-fourth to Twenty-sixth street W., No. 1270 (Commrs.).
Twenty fourth to Twenty-fifth street W., No. 1715 (Commrs.).
First to Second street W., No. 1716 (Commrs.).
North Capitol to First street W., No. 1728 (Commrs.).
Fourteenth street to Tennessee avenue E., No. 1898 (Commrs.).
Fifth to Sixth street W., d. l., 1877.
Second to Third st. E., north side, d. l., 1878.
Thirteenth to Fourteenth street W., north side, d. l., 1879.
Eleventh to Twelfth street W., south side, d. l., 1884.
Ninth to Tenth st. W., north side, d. l., 1882.
Virginia avenue W., crossing, d. l., 1885.
Virginia ave. to Twenty-second st. W., d. l., 1886.
Third to Fourth street W., d. l., 1887.
Twelfth to Thirteenth street E., d. l., 1888.
Hancock avenue (basin), d. l., 1889.
Seventh to Eighth street E., d. l., 1889.
Ninth to Tenth street E., d. l., 1889.
Fifth to Sixth street E., d. l., 1890.
Fifth to Seventh street W., d. l., 1890.
Fourteenth to Fifteenth street W., d. l., 1891.
Eleventh to Twelfth street E., d. l., 1891.
Twelfth to Thirteenth street W., d. l., 1891.
Second to Third street E., d. l., 1892.
Florence place to Tennessee avenue, d. l., 1892.
First to Second street E., d. l., 1892.
Eleventh to Twelfth street W., d. l., 1892.
Tenth street E., crossing, d. l., 1893.
Eleventh to Twelfth street W., d. l., 1893.
Fourteenth st. to Tennessee ave., d. l., 1893.
Twenty-second to Twenty-third st., d. l., 1893.
Twenty-third to Twenty-sixth st. W., d. l., 1894.
Twenty-second to Twenty-third street W., d. l., 1894.
First to Second street E., d. l., 1895.
Second to Third street E., d. l., 1895.
North Capitol st. to New Jersey ave., d. l., 1896.
Seventh street W., near (basin), d. l., 1896.
Eleventh to Twelfth street E., d. l., 1897.
Nineteenth to Twenty-first street W.,[1] d. l., 1897, Repl.
Twelfth to Thirteenth street E., d. l., 1897.
Tenth to Eleventh street E., d. l., 1897.
Fourteenth street W., d. l., 1897.

F street S.

Third to Four-and-a-half street W., No. 376 (B. P. W.).
Sixth to Seventh street W., north side, No. 539 (B. P. W.).
Third to Seventh st. W., No. 835 (B. P. W. & C).
Third to Seventh street W., No. 837 (B. P. W.).
Seventh to Ninth street W., contract number not known (B. P. W.).
Eighth to Tenth street W., No. 589 (Commrs.).
First to Third street W., No. 589 (Commrs.).
One-half street to Delaware avenue W., No. 589 (Commrs.).
Tenth to Eleventh st. W., north side, d. l., 1880.
Sixth to Seventh st. W., south side, d. l., 1883.
Eighth to Ninth street W., d. l., 1886.
Sixth to Seventh street W., d. l., 1890.
Four-and-a-half to Sixth st. W., d. l., 1891; Repl.
Tenth to Eleventh street W., d. l., 1894.

G street N.

Fourth to Fifth street, May 26, 1841 (C. W.).
Fifth to Sixth street W., August 16, 1853, September 9, 1857 (C. W.).
Fourteenth to Fifteenth street W., October 26, 1865 (C. W.)
Eighteenth to Twenty-first street, September 13, 1869 (C. W.). Constructed from Twentieth to Twenty-first street.
Twelfth to Thirteenth street, October 9, 1869, January 3, 1870 (C. W.).
Fifth to Sixth street. *See* Indiana avenue.
Fourth to Fifth street W., north side, No. 204 (B. P. W.).
Ninth to Thirteenth st. W., No. 233 (B. P. W.)
New Jersey avenue to Seventh street W., No. 233 (B. P. W).
Nineteenth to Twentieth street W., No. 284 (B. P. W.).
Twenty-second street to Potomac River, No. 645 (B. P. W.).
Fifth to Thirteenth st. E., No. 702 (B. P. W.).
Maryland avenue to Fifteenth street E., No. 702 (B. P. W. & C.).
Second to Third st. E., No. 702 (B. P. W. & C.).
Eighth to Ninth st. E., No. 727 (B. P. W. & C.).
North Capitol to First st. W., No. 821 (B. P. W.).
North Capitol to First st. E., No. 51 (Commrs.).
North Capitol to Second street E., No. 589 (Commrs.).
New Jersey ave., crossing, No. 590 (Commrs.).
Massachusetts avenue, crossing, No. 593 (Commrs.).
Delaware avenue to Second street E., No. 826 (Commrs.).
North Capitol to First street E. (basins), No. 826 (Commrs.).
North Capitol street (basin), No. 826 (Commrs.).
Delaware avenue E. (basin), No. 826 (Commrs.).
Delaware avenue to Second street E., No. 954 (Commrs.).
Thirteenth street to Maryland avenue E., No. 1170 (Commrs.).
Fourth to Fifth street E., No. 1195 (Commrs.).
Sixth to Seventh street E. (basin), No. 1256 (Commrs.).
Twelfth to Thirteenth street W., No. 1715 (Commrs.).
North Capitol to First street W., No. 1750 (Commrs.).
New Jersey avenue to Second street, north side, d. l., 1876.
North Capitol to First street W., south side, d. l., 1877.
Delaware avenue, crossing, d. l., 1878.
Thirteenth to Fourteenth street E., d. l., 1878.
Second to Third street W., d. l., 1880.
North Capitol to First street W., south side, d. l., 1881.
Tenth to Eleventh street W., d. l., 1883.
Third to Fourth street W., d. l., 1886.
Fourteenth to Fifteenth street E., d. l., 1886.
Fourth to Fifth street E., d. l., 1887.
Twenty-first to Twenty-second street W., d. l., 1887.
Thirteenth to Fourteenth street E., d. l., 1889.
Seventh to Eighth street W.,[2] d. l., 1889, Repl.
Second to Third street E., d. l., 1889.
Twenty-fourth to Twenty-fifth street W., d. l., 1889.
Fifteenth street W. (basin), d. l., 1891.
North Capitol to First street W., d. l., 1891, Repl.
Third to Fourth street E., d. l., 1891.
Eighteenth street W., crossing, d. l., 1892.
Fourth to Fifth street E., d. l., 1892.
Second street E., crossing, d. l., 1893.
North Capitol to First st. W., d. l., 1893, Repl.
Florence street (basin), d. l., 1894.
Eighteenth to Nineteenth street W., d. l., 1894.
Twenty-fourth st. to Virginia ave. W., d. l., 1894.
Tenth to Eleventh street W. (basins), d. l., 1894.
Tenth to Eleventh street W., d. l., 1896.
Twelfth to Thirteenth street W., d. l., 1896.
Tenth to Fourteenth street W., d. l., 1896.
Fifth to Sixth street E., d. l., 1896.
Sixth to Seventh street E., d. l., 1897.
Fourteenth to Fifteenth street E., d. l., 1897.
Twentieth to Twenty-first street W., d. l., 1897.
Third to Fourth street E., d. l., 1897.
Ninth to Tenth street W., d. l., 1897.

G street S.

Third to Four-and-a-half street W., No. 376 (B. P. W.).
Seventh to Eighth street W., No. 501 (B. P. W.).
Four-and-a-half to Sixth street W., No. 803 (B. W. P.).

[1] Original sewer constructed under contract with C. W.
[2] No record of original construction of sewer in this street.

Third to Fourth street E., No. 819 (B. P. W. .
Four-and-a-half to Eleventh street W., No. 851 (B. P. W.).
Four-and-a-half to Eleventh street W., No. 1063 (B. P. W.).
Seventh street, crossing, No. 1072 (B. P. W.).
First to Canal street W., No. 583 (Commrs.).
Third street to Delaware avenue W., No. 584 (Commrs.).
Eighth to Ninth street E., No. 589 (Commrs.).
Sixth to Seventh street E., No. 589 (Commrs.).
Ninth to Tenth street E., No. 631 (Commrs.).
Seventh to Eighth street E., No. 631 (Commrs.).
Third to Sixth street E.. No. 631 (Commrs.).
Twelfth to Thirteenth st. E., No. 730 (Commrs.).
Eleventh street E. (basins), No. 957 (Commrs.).
Eleventh to Twelfth st. E., No. 1468 (Commrs.).
Third to Four-and-a-half street, W. No. 1723 (Commrs.).
Sixth to Eighth street E., No. 1797 (Commrs.).
Thirteenth st. E., siphon, No. 1913 (Commrs.).
Third to Four-and-a-half street W., Repl., No. 1921 (Commrs.).
Seventh to Eighth st. E., south side, d. 1., 1880.
Sixth to Seventh st. E., north side, d. 1., 1882.
Fourth to Fifth street E., d. 1., 1887.
Twelfth to Thirteenth street E., d. 1., 1887.
Tenth to Eleventh street E., d. 1., 1888.
Twelfth to Thirteenth street E., d. 1., 1889.
Tenth to Eleventh street E., d. 1., 1890.
Eleventh to Thirteenth street E., d. 1., 1891.
Eleventh to Twelfth street E., d. 1., 1893.
Third to Four-and-a-half st. W., d. 1., 1893, Repl.
Ninth to Tenth street E., d. 1., 1895.
Tenth to Eleventh street E., d. 1., 1895.
Four-and-a-half to Sixth st. W., d. 1., 1895, Repl.
Four-and-a-half to Sixth street W. (basins), d. 1., 1895.
Third to Four-and-a-half st. W., d. 1., 1895, Repl.
Four-and-a-half st. W., crossing, d. 1., 1895, Repl.
Sixth to Seventh street E., d. 1., 1896, Repl.
Fourteenth to Fifteenth street E., d. 1., 1896.
Eleventh to Twelfth street E., d. 1., 1897.
Sixth to Seventh street W., d. 1., 1897, Repl.
Pennsylvania avenue to Fourteenth street E., d. 1., 1897.

H street N.

Fourth to Fifth st., September 17, 1835 (C. W.).
Sixth to Eighth street W., May 6, 1858 (C. W.).
Eighteenth to Nineteenth street, May 16, 1867 (C. W.).
Seventeenth to Eighteenth street, May 16, 1867 (C. W.).
Twenty-first to Twenty-second street, September 13, 1869 (C. W.).
Eighth to Ninth street W., May 2, 1871 (C. W.).
Sixteenth to Seventeenth street, rear of, act of Congress March 2, 1867.
Twenty-third to Twenty-fourth street, No. 21 (B. P. W. & C.).
First to Third street W., No. 24 (B. P. W.)
North Capitol to First st. W., No. 24 (B. P. W.).
Twelfth to Thirteenth st. W., No. 62 (B. P. W.).
Seventh to Twelfth st. W., No. 62 (B. P. W.).
Eighth to Ninth street W., No. 62 (B. P. W.).
Thirteenth to Fourteenth street W., No. 249 (B. P. W.).
Fifteenth street E., No. 279 (B. P. W. & C.).
North Capitol to First street W., No. 572 (B. P. W.).
Fifteenth street to Vermont avenue W., No. 696 (B. P. W.).
Second to Third st. E., No. 702 (B. P. W. & C.).
Ninth street E. (basin), No. 702 (B. P. W. & C.).
Thirteenth street E., No. 702 (B. P. W.).
North Capitol street, No. 51 (Commrs.).
North Capitol to First st. E., No. 51 (Commrs.).
Fourth to Fifth street W., No. 240 (Commrs.).
Fourth to Sixth street W., No. 449 (Commrs.).
North Capitol street to New Jersey avenue No. 479 (Commrs.).
North Capitol to First street E., No. 587 (Commrs.).
Tenth to Eleventh st. E., No. 589 (Commrs.).
New Hampshire avenue to Twenty-fifth st., No. 589 (Commrs.).
Third to Fourth street E., No. 589 (Commrs.).
North Capitol to Second street E., No. 589 (Commrs.).
Twenty-fourth street to New Hampshire avenue, No. 590 (Commrs.).
North Capitol to First st. E., No. 591 (Commrs.).
Third to Fourth street E., No. 631 (Commrs.).
Tenth to Eleventh street E., No. 631 (Commrs.).
Fourth to Fifth street W. (basins), No. 728 (Commrs.).
Sixth street W. (basins), No. 728 (Commrs.).
First st. to Delaware av. E., No. 730 (Commrs.).
Second to Third street E., No. 730 (Commrs.).
Fifth to Sixth street E., No. 730 (Commrs.).
Ninth street E., crossing, No. 730 (Commrs.).
Eighth to Ninth street E., No. 730 (Commrs.).
Ninth to Tenth street W., No. 826 (Commrs.).
Fifth to Seventh street E., No. 826 (Commrs.).
Thirteenth to Fourteenth street E., No. 826 (Commrs.).
Delaware avenue to Second street E., No. 954 (Commrs.).
Eleventh to Twelfth st. E., No. 1270 (Commrs.).
Florida av. to Eighth st. E., No. 1479 (Commrs.).
Seventh to Eighth st. E., No. 1728 (Commrs.).
Tenth to Eleventh st. E., south side, d. 1., 1878.
Sixth to Seventh street E., north side, d. 1., 1878.
Fourth to Fifth street W., d. 1., 1879.
Ninth to Tenth street W., south side, d. 1., 1880.
Fifth to Sixth street W., north side, d. 1., 1881.
Fourth to Fifth street W., south side, d. 1., 1880.
Fourth to Fifth street W., north side, d. 1., 1882.
Twenty-second to Twenty-third street W., d. 1., 1882.
Fifth to Sixth street W., north side, d. 1., 1884.
Ninth to Tenth street W., south side, d. 1., 1883.
Eighth to Ninth street E., d. 1., 1886.
Twelfth to Thirteenth street E., d. 1., 1887.
Thirteenth to Fourteenth street E., d. 1., 1888.
Fourteenth st. to Florida ave. E., d. 1., 1888.
First to Second street W., d. 1., 1889, Repl.
Fifteenth street E., d. 1., 1889.
Nineteenth to Twentieth street W., d. 1., 1889.
Fourth to Fifth street W., d. 1., 1890.
Seventeenth to Eighteenth st. W., d. 1., 1890.
Fifth to Sixth street E., d. 1., 1890.
Fourth to Fifth street E., d. 1., 1891.
North Capitol to First st. E., d. 1., 1892, Repl.
Seventh street E., crossing, d. 1., 1893.
North Capitol to First street E., d. 1., 1893, Repl.
Twenty-second to Twenty-third st. W., d. 1., 1893.
Eleventh to Twelfth street E., d. 1., 1893.
Fourteenth st. to Florida ave. E., d. 1., 1893.
Twenty-fourth to Twenty-sixth st. W., d. 1., 1894.
Thirteenth to Fourteenth street E., d. 1., 1894.
Eighth to Ninth street W., d. 1., 1895, Repl.
North Capitol to First st. W. (basin), d. 1., 1895.
Third to Fourth street W., d. 1., 1896.
Twelfth to Thirteenth street E., d. 1., 1896.
Fourteenth to Fifteenth street W., d. 1., 1896.
Fifteenth st. to Vermont avenue W., d. 1., 1896.
Fifteenth to Madison street W., d. 1., 1896.
Connecticut avenue to Seventeenth street W., d. 1., 1896.
Jackson place to Seventeenth st. W., d. 1., 1896.
North Capitol to First street W., d. 1., 1896, Repl.
Twelfth to Thirteenth street E., d. 1., 1896.
Fourteenth street W., crossing, d. 1., 1896.
Thirteenth to Fourteenth street E., d. 1., 1896.
Thirteenth to Fourteenth street W., d. 1., 1896.
Thirteenth street E., crossing, d. 1., 1896.
Eighth to Ninth street E., 1897.
Eleventh to Twelfth-street E., d. 1., 1897.
Twentieth to Twenty-first street W., d. 1., 1897.
Connecticut avenue to Seventeenth street W., d. 1., 1897.
Fourth to Fifth street E., d. 1., 1897.
Fifteenth st. to Vermont ave. (basins), d. 1., 1897.

H street S.

Water street W., crossing, No. 362 (B. P. W.).
Third to Four-and-a-half street W., No. 376 (B. P. W.).
Sixth to Seventh street W., north side, No. 536 (B. P. W.).
Sixth to Seventh street W., No. 790 (B. P. W.).
Four-and-a-half to Sixth street W., No. 835 (B. P. W. & C.).
South Capitol street to James Creek Canal, No. 853 (B. P. W. & C.).
Four-and-a-half to Sixth street W., No. 631 (Commrs.).

Third street to Delaware avenue W., No. 730 (Commrs.).
Seventh to Ninth street W., No. 730 (Commrs.).
Delaware avenue to Third street W., No. 826 (Commrs.).
Third to Four-and-a-half street W., No. 1468 (Commrs.).
Third to Four-and-a-half street W., No. 1473 (Commrs.).
Third to Four-and-a-half street W., No. 1723 (Commrs.).
Four-and-a-half to Sixth street W., No. 2082 (Commrs.).
South Capitol to One-half street, d. l., 1888.
Seventh to Eighth street W., d. l., 1889.
Third to Four-and-a-half street W., d. l., 1890, Repl.
Seventh to Eighth street W., d. l., 1890.

I street N.

Eighth to Ninth street W., February 23, 1853 (C. W.).
Tenth street W., near, November 4, 1857 (C. W.).
Fourteenth street to Connecticut avenue, July 27, 1865 (C. W.).
Sixth to Seventh street W., September 1, 1865 (C. W.).
Seventeenth to Eighteenth street, May 16, 1867 (C. W.).
Sixth to Seventh street, October 3, 1867 (C. W.).
Tenth to Twelfth st. W., April 25, 1868 (C. W.).
Twelfth to Thirteenth st. W., May 9, 1868 (C. W.).
Seventeenth to Eighteenth street W., June 1, 1868 (C. W.).
Tenth to Twelfth street W., October 17, 1868 (C. W.).
Twenty-second street to Rock Creek, September 13, 1869 (C. W.).
Twentieth to Twenty-second street, October 6, 1869 (C. W.).
Rock Creek, January 10, 1870 (C. W.).
North Capitol to First st. E., No. 584 (B. P. W.).
North Capitol to First st. W., No. 584 (B. P. W.).
North Capitol to First st. E., No. 819 (B. P. W.)
Fifteenth to Seventeenth street W., No. 275 (P. B. W.).
Fourth to Fifth street W., No. 353 (B. P. W.).
New Jersey avenue to North Capitol street, No. 384 (B. P. W. & C.).
Seventh to Eighth street W., No. 692 (B. P. W.).
Seventh to Eighth st. W., No. 692 X (B. P. W.).
Fourth to Fifth street W., No. 896 (B. P. W.).
Fourth street (basin), No. 896 (B. P. W.).
Tenth to Eleventh st. E., No. 1034 (B. P. W. & C.).
Fourth to Fifth street W. (basin), No. 1034 (B. P. W. & C.).
North Capitol street, No. 1034 (B. P. W. & C.).
Tenth to Eleventh street E., No. 5 (Commrs.).
Fourth to Sixth street E., No. 476 (Commrs.).
Thirteenth st. E., crossing, No. 449 (Commrs.).
Fourth to Fifth street W. (basins), No. 481 (Commrs.).
Sixth to Seventh street E., No. 589 (Commrs.).
North Capitol to First st. E., No. 591 (Commrs.).
Eighth to Ninth street E., No. 730 (Commrs.).
Twenty-first to Twenty-second street, No. 826, (Commrs.).
Fourth to Fifth street W. (basin), No. 1171 (Commrs.).
North Capitol to First street E. (basin), No. 1171 (Commrs.).
Eleventh to Twelfth st. E., No. 1270 (Commrs.).
Thirteenth street to Florida avenue E., No. 1270 (Commrs.).
Fourth to Fifth street W., No. 1566 (Commrs.).
Third to Fourth street E., No. 1716 (Commrs.).
Eighth to Ninth street E., No. 1723 (Commrs.).
North Capitol to First st. E., No. 1723 (Commrs.).
Third to Fourth street E., No. 1728 (Commrs.).
First st. to Delaware ave. W., August 30, 1877.
Sixteenth to Seventeenth street W., d. l., 1886.
Sixth to Seventh street E., d. l., 1887.
Tenth to Eleventh street W., d. l., 1888.
Sixth to Seventh street E., d. l., 1889.
North Capitol to First st. E. (basin), d. l., 1890.
North Capitol to First street E., d. l., 1890, Repl.
Twelfth to Thirteenth street E., d. l., 1890.
Sixth to Seventh street E., d. l., 1890.
Sixth to Seventh street E., d. l., 1891.
Eighth to Ninth street E., d. l., 1895, Repl.
North Capitol to First st. W., d. l., 1895, Repl.
Seventh to Eighth street W., d. l., 1895, Repl.
Thirteenth to Fourteenth street W. (basins), d. l., 1895.
North Capitol to First st. W. (siphon), d. l., 1895.
Eleventh to Twelfth street E., d. l., 1896.
Twenty-first to Twenty-second st. W., d. l., 1896.
First street E. (crossing), d. l., 1896.
Fifth street to Massachusetts avenue, d. l., 1896.
Virginia ave. to Twenty-seventh st., d. l., 1897.
Third to Fourth street E., d. l., 1897.
Twenty-fourth street, d. l., 1897.
New Hampshire avenue (basin), d. l., 1897.

I street S.

Third to Four-and-a-half street W., No. 376 (B. P. W.).
Sixth to Eighth street E., north side, No. 484 (B. P. W.).
Sixth to Seventh street W., north side, No. 539 (B. P. W.).
Third to Fourth street E., No. 833 (B. P. W.).
Second to Third street E., No. 843 (B. P. W.).
South Capitol street to James Creek Canal, No. 853 (B. P. W. & C.).
Ninth to Twelfth street E., No. 587 (Commrs.).
Four-and-a-half to Sixth street W., No. 730 (Commrs.).
Four-and-a-half to Sixth street W., No. 826 (Commrs.).
Fourth to Fifth street E., No. 954 (Commrs.).
Second to Third street W., No. 1468 (Commrs.).
One-half to First street E., No. 1468 (Commrs.).
Eighth to Ninth street E., No. 1468 (Commrs.).
South Capitol to Half st. E., No. 1473 (Commrs.).
Third to Four-and-a-half street W., No. 2082 (Commrs.).
Delaware avenue to James Creek Canal, No. 2238 (Commrs.).
First to Third street W., No. 2361 (Commrs.).
First st., to Delaware ave., north side, d. l., 1876.
First to Canal street W., north side, d. l., 1876.
First street to Delaware avenue W., north side, d. l., 1878.
Delaware avenue to Third street W., d. l., 1889.
Second to Third street W., d. l., 1890.
Third to Fourth street E., d. l., 1892.
Second to Third street W., d. l., 1892.
Second to Third street W., d. l., 1894.
Sixth to Seventh street E., d. l., 1895, Repl.
Second to Third street E., d. l., 1896.
Tenth to Eleventh street E., d. l., 1896.
Twelfth to Thirteenth street E., d. l., 1896.
Third to Fourth street E., d. l., 1897.
Four-and-a-half to Sixth st., W., d. l., 1897, Repl.
Eighth to Ninth street E., d. l., 1897.
Ninth to Tenth street E., d. l., 1897.
Twelfth to Thirteenth street E., d. l., 1897.

K street N.

Eighth to Ninth st. W., October 29, 1864 (C. W.).
Thirteenth to Fourteenth street W., July 27, 1865 (C. W.).
Eleventh to Twelfth street W., November 15, 1870, April 4, 1871 (C. W.).
Eighth to Ninth street, No. 192 (B. P. W.).
Third to Fourth street W., No. 230½ (B. P. W.).
Twenty-fourth street to Rock Creek, No. 274 (B. P. W.).
Third to Fourth street W., No. 341 (B. P. W.).
Fourteenth to Fifteenth street W., No. 350 (B. P. W.).
Ninth to Twenty-third st. W., No. 359 (B. P. W.).
Ninth to Tenth street W., No. 424 (B. P. W.).
Sixth to Seventh st. E., No. 702 (B. P. W. & C.).
North Capitol to Seventh street W., No. 795 (B. P. W.).
North Capitol to First st. E., No. 710 (B. P. W.).
Rock Creek to Thirty-second street, No. 860 (B. P. W.).
Thirty-second to Thirty-third street, No. 765 (B. P. W.).
Fifth to Sixth street W., No. 91 (Commrs.).
Seventh to Ninth street W., No. 177 (Commrs.).
Sixteenth st. W., crossing, No. 589 (Commrs.).
North Capitol to First st. E., No. 897 (Commrs.).

First to Third street E., No. 954 (Commrs.).
Fourth to Fifth street E., No. 954 (Commrs.).
Delaware ave. to Third st. E., No. 954 (Commrs.).
First street E. (basin), No. 1171 (Commrs.).
Washington Circle to Twenty-second street, No. 1195 (Commrs.).
Fifth to Seventh street E., No. 1195 (Commrs.).
Twelfth street to Florida avenue E., No. 1270 (Commrs.).
North Capitol to Fourth street W., No. 1287 (Commrs.).
Second street to Delaware avenue E., No. 1468 (Commrs.).
Twenty-fourth street W., two siphons, No. 1913 (Commrs.).
Twentieth to Twenty-first street W., No. 2206 (Commrs.).
Seventh to Eighth st. W., north side, d. l., 1879.
Seventh to Eighth st. W., north side, d. l., 1882.
Twenty-first to Twenty-second street, north side, d. l., 1883.
Third to Fourth street E., d. l., 1886.
Eighth to Ninth street E., d. l., 1887.
Fourth to Fifth street E. (basin), d. l., 1888.
North Capitol to First st. E., d. l., 1888, Repl.
Thirty-third to Thirty-fourth st. W., d. l., 1888.
Fifteenth to Sixteenth st. W., d. l., 1889, Repl.
Twenty-seventh to Twenty-eighth street (basin), d. l., 1889.
Fourteenth to Fifteenth street W. (basins) d. l., 1889.
Third to Fourth street E., d. l., 1889.
Fifteenth to Sixteenth st. W., d. l., 1890, Repl.
Fourteenth to Fifteenth street W., south side, d. l., 1891.
Sixteenth to Seventeenth street W., d. l., 1891, Repl.
Fifth to Sixth street E., d. l., 1891.
Twelfth street to Florida avenue E., d. l., 1893.
Third to Fourth street E., d. l., 1893.
Sixth to Seventh street E., d. l., 1894.
North Capitol to First st. E. (basin), d. l., 1894.
New Jersey avenue to First st. W., d. l., 1894.
Fourth to Fifth street W., d. l., 1894.
Second street to Delaware avenue, d. l., 1894.
Fourth to Fifth street W., d. l., 1895.
Seventh to Eighth street E., d. l., 1895.
Sixth to Seventh street E., d. l., 1895.
Twenty-first to Twenty-second street W., d. l., 1896.
Eighth to Ninth street E., d. l., 1896.
Eighteenth to Nineteenth street W., d. l., 1896.
Ninth to Tenth street E., d. l., 1896.
Third to Fourth street E., d. l., 1897.

K street S.

Third to Four-and-a-half street W., No. 376 (B. P. W.).
Sixth to Seventh street W. (both sides), No. 539 (B. P. W.).
Third street W., crossing, No. 954 (Commrs.).
Tenth to Twelfth street E., No. 1169 (Commrs.).
Half to Third st. W., No. 1171 (Commrs.).
Tenth to Eleventh st. E., No. 1270 (Commrs.).
Third to Four-and-a-half street W., No. 1897 (Commrs.).
New Jersey avenue to First street E., siphon, No. 1913 (Commrs.).
Thirteenth to Fourteenth street E., No. 2008 (Commrs.).
Eighth to Ninth street E., north side, d. l., 1881.
Sixth to Seventh street E., d. l., 1886.
Eighth to Ninth street E., d. l., 1886.
Ninth to Tenth street E., d. l., 1888.
South Capitol to Half street E., d. l., 1888.
Sixth to Seventh street E., d. l., 1891.
Delaware avenue to First street W., d. l., 1891.
Four-and-a-half to Sixth street W., d. l., 1892.
Third to Fourth street E., d. l., 1893.
Canal street W., d. l., 1895.
Four-and-a-half to Sixth street W., d. l., 1895.
Sixth to Seventh street E., d. l., 1895.
Georgia avenue to Thirteenth st. E., d. l., 1897.
Sixth to Seventh street E., d. l., 1897.
Fifth to Sixth street E., d. l., 1897.
Twelfth to Thirteenth street E., d. l., 1897.
Third street E., crossing, d. l., 1897.

L street N.

Ninth to Tenth street, May 23, 1863 (C.
Twentieth to Twenty-first street, May (C. W.), not constructed.
Sixteenth to Seventeenth street, Jun (C. W.), not constructed.
Fourteenth street to Vermont avenue, 11, 1866 (C. W.).
Seventh to Eighth street, June 12, 1867 not approved by mayor.
Fourth to Fifth street, June 10, 1869 (C.
Twenty-first street, October 6, 1869 (C.
Sixth to Seventh st., October 27, 1869 (C
Twelfth to Fourteenth street, Augus (C. W.).
Fourteenth to Twenty-first street W (B. P. W.).
Twentieth to Twenty-first street W. (B. P. W.).
Fourteenth to Twenty-first street W.. (B. P. W.).
New Jersey avenue to Tenth street W sides, No. 640 (B. P. W.).
Fifth to Seventh st. E., No. 702 (B. P. W
Ninth to Tenth street W., No. 704 (B. P
Twenty-second to Twenty-fourth str 729 (B. P. W.).
Twenty-second to Twenty-third street(No. 729 (B. P. W.).
Third street to New Jersey avenue, (B. P. W. & C.).
North Capitol to First st E., No. 836 (B
Twenty-sixth to Twenty seventh str No. 899 (B. P. W. & C.).
Sixteenth to Twentieth street W., (Commrs.).
Sixth street E., crossing, No. 593 (Com
First street to New Jersey avenue W. (Commrs.).
North Capitol to First st. W., No. 631 (Co
Sixth st. to Florida ave. E., No. 1381 (Co
Sixth street E. (basin), No. 1473 (Comr
Sixth to Seventh street E. (basins), (Commrs.).
Third to Sixth street E., No. 1907 (Con
Twenty-fourth street W., siphon, N (Commrs.).
North Capitol to First street E., N (Commrs.).
North Capitol to First street E.,] (Commrs.).
First street to Delaware avenue E.,] (Commrs.).
Fourteenth street to Vermont avenu side, d. l., 1877.
Twenty-first to Twenty-second stree side, d. l., 1880.
North Capitol to First street W., no d. l., 1880.
Twenty-first to Twenty-second stree side, d. l., 1884.
North Capitol to First street E., d. l., 1
First to Second street W., d. l., 1885.
Eighth to Ninth street W., d. l., 1886.
Twentieth to Twenty-first street W., d
Twenty-first to Twenty-second st. W.,
Eighth to Ninth street W., d. l., 1887.
First street to New Jersey avenue W., d
First street to New Jersey avenue W., d
North Capitol to First street W., d. l.,
Twenty-first to Twenty-second st. W 1889.
Twentieth to Twenty-first street W., d
Twenty-first to Twenty-second st. W., d
Fifth to Sixth street W., d. l., 1891.
Twentieth to Twenty-first street W., d
Twenty-first to Twenty-second st. W., d
Fifth street E., d. l., 1893.
Twenty-first street to New Hampshire d. l., 1894.
Sixth to Seventh street E., d. l., 1894.
Ninth street to Florida avenue E., d. l.
Third to Fourth street E., d. l., 1895.
Seventh to Eighth street E., d. l., 1895.
North Capitol to First st. W., d. l., 1895
Second to Third street E., d. l., 1895.
Twenty-first to Twenty-second st. W., d
Second street to Delaware avenue E., d

L street S.

Sixth to Seventh street E., No. 297½ (B. P. W.).
Third to Four-and-a-half street W., No. 376 (B. P. W.).
Second to Third street E., No. 954 (B. P. W.).
New Jersey avenue to First street E., No. 1169 (Commrs.).
Second to Fourth st. E., No. 1169 (Commrs.).
Fourth to Fifth street E., No. 1171 (Commrs.).
Tenth to Eleventh st. E., No. 1270 (Commrs.).
Four-and-a-half to Seventh street W., No. 1270 (Commrs.).
Fourth to Sixth street E., No. 1287 (Commrs.).
First to Canal street W., d. l., 1876.
Twelfth to Thirteenth street E., d. l., 1887.
Eighth to Ninth street E., d. l., 1888.
Sixth to Seventh street W., d. l., 1890.
New Jersey avenue to Second street E., d. l., 1893.
First street to Delaware avenue W., d. l., 1894.
Eleventh to Twelfth street E., d. l., 1894.
Sixth street E., crossing, d. l., 1894.
Third to Fourth street E., d. l., 1894.
Fifth to Sixth street E., d. l., 1895.
Third street to Delaware avenue W., d. l., 1895.
Fourth to Fifth street E., d. l., 1897.
Eighth to Ninth street E., d. l., 1897.
Canal to Seventh street E., d. l., 1897.
Public space, N W. corner (basin), d. l., 1897.
Sixth to Seventh street E., d. l., 1897.
Navy-yard E. (basin), d. l., 1897.

M street N.

Sixth to Seventh st., February 6, 1869 (C. W.).
Twelfth to Fourteenth street W., May 24, 1869 (C. W.).
Rock Creek to Thirtieth street W., No. 26 (B. P. W.).
New Hampshire avenue to Rock Creek, No. 212 (B. P. W.).
Fourteenth to Fifteenth street W., both sides, No. 247 (B. P. W.).
Nineteenth to Twentieth street W., No. 405 (B. P. W.).
Fourteenth to Fifteenth street W., No. 423 (B. P. W.)
Eighteenth to Twentieth street W., No. 585 (B. P. W.).
New Hampshire avenue to Twenty-second street, No. 615 (B P. W.).
Twentieth to Twenty-first street W., No. 759 (B. P. W.).
Fourteenth to Fifteenth street W., No. 827 (B. P. W.).
Thirty-third to Thirty-sixth street W., No. 838 (B. P. W. & C.).
Thirteenth to Fourteenth street W., No. 874 (B. P. W.).
Rock Creek Bridge (basins), No. 24X (Commrs.).
Seventeenth to Eighteenth street W., No. 449 (Commrs.).
Fifteenth to Seventeenth street W., No. 589 (Commrs.).
Thirty-sixth st. W. (basins), No. 957 (Commrs.).
Thirty-fifth to Thirty-sixth street W., No. 1169 (Commrs.).
Thirty-fourth to Thirty-fifth street W., No. 1270 (Commrs.).
Thirty-third to Potomac street W., No. 1468 (Commrs.).
Thirty-sixth to Thirty-seventh street W., No. 1565 (Commrs.).
Twelfth street to Trinidad avenue E., No. 1716 (Commrs.).
Twelfth street to Trinidad avenue E., No. 1723 (Commrs.).
First to Second street E., No. 2008 (Commrs.).
Seventh to Eighth street W., August 30, 1877.
Rhode Island ave. to Seventeenth st., d. l., 1879.
Eighteenth to Nineteenth street, north side, d. l., 1883.
Third to Fourth street W., d. l., 1886.
New Hampshire avenue to Twenty-first street, d. l., 1886.
North Capitol to First street E., d. l., 1887.
New Hampshire avenue to Twenty-first street, d. l., 1887.
North Capitol to First street W., d. l., 1888.
Eighteenth to Nineteenth street W., d. l., 1889.
Rock Creek to Twenty-eighth st. W., d. l., 1891.
Fifth to Sixth street W., d. l., 1891.
Seventeenth to Eighteenth street W., d. l., 1891.
Trinidad avenue to Twelfth street E., d. l., 1893.
Sixteenth to Seventeenth street W., d. l., 1893.
North Capitol to First street E., d. l., 1894, Repl.
North Capitol to First street W., d. l., 1894.
North Capitol to First street E., d. l., 1894.
Twelfth street E. to Trinidad sewer, d. l., 1894.
Fourth to Fifth street E., d. l., 1895.
Eighteenth to Nineteenth street W. (basin), d. l., 1895.
Trinidad avenue E. (basin), d. l., 1895.
Thirty-fifth to Thirty-sixth street W., d. l., 1896.
Third to Fourth street E., d. l., 1896.
Twentieth street W., crossing, d. l., 1896, Repl.
Twenty-seventh to Twenty-eighth street W., d. l., 1896, Repl.
Fifth to Sixth street E., d. l., 1896.
Thirty-fifth to Thirty-seventh st. W., d. l., 1896.
Nineteenth to Twentieth street W., d. l., 1897.
Thirty-fourth to Thirty-fifth st. W., d. l., 1897.
Thirty-fifth to Thirty-sixth street W., d. l., 1897.
Third street to Delaware avenue E., d. l., 1897.
Delaware ave. E., NE. corner (basin), d. l., 1897.
Fourth street E., NE. corner (basin), d. l., 1897.
Fourth street E., NW. corner (basin), d. l., 1897.
Fifth street E., NE. corner (basin), d. l., 1897.
Sixth street E., NE. corner (basin), d. l., 1897.
Thirty-fifth to Thirty-sixth st. (basin), d. l., 1897.
Florida avenue E. (basin), d. l., 1897.
Eighteenth street W. (basin), d. l., 1897.

M street S.

Sixth to Eighth street E., No. 297½ (B. P. W.).
Third to Four-and-a-half street W., No. 376 (B. P. W.).
Third street to James Creek Canal W., No. 394 (B. P. W.).
Sixth to Seventh street W., north side, No. 539 (B. P. W.).
One-half to First street W., No. 589 (Commrs.).
Third to Sixth street W., No. 589 (Commrs.).
South Capitol to One-half street W., No. 590 (Commrs.).
Second to Third street E., No. 826 (Commrs.).
Second to Fourth street E., No. 954 (Commrs.).
First street to New Jersey avenue E., No. 1169 (Commrs.).
Eleventh to Twelfth st. E., No. 1170 (Commrs.).
Ninth to Twelfth street E., No. 1195 (Commrs.).
Third street to Delaware avenue W., No. 1468 (Commrs.).
Delaware avenue W., No. 1473 (Commrs.).
Eighth to Ninth street E., No. 1923 (Commrs.).
Sixth to Water street W., No. 2058 (Commrs.).
Four-and-a-half to Union street W., south side, d. l., 1876.
Four-and-a-half to Sixth street W., south side, d. l., 1876.
Union to Sixth street W., d. l., 1881.
Sixth to Seventh street E., d. l., 1896, Repl.
Fourth to Fifth street E., d. l., 1893.
Second st. to New Jersey avenue E., d. l., 1893.
One-half to Canal street W., d. l., 1894.
Fourth to Fifth street E., d. l., 1894.
New Jersey avenue to First st. E., d. l., 1895.
Fifth to Sixth street E., d. l., 1896.
Third to Four-and-a-half st. W., d. l., 1896, Repl.
Four-and-a-half to Seventh st. W., d. l., 1897, Repl.
Fifth to Sixth street E., d. l., 1897.
Second to Third street, d. l., 1897, Repl.

N street N.

Twelfth to Thirteenth street W., Dec. 9, 1870 (C. W.).
Seventh to Fourteenth st. W., No. 64 (B. P. W.).
Thirteenth street to Vermont avenue W., No. 195 (B. P. W.).
Seventeenth to Eighteenth street W., No. 355 (B. P. W.).
Seventh to Eighth street W., No. 592 (B. P. W.).
New Jersey avenue to Fifth street W., No. 582 (B. P. W.).

Thirty-second to Thirty-fifth street W., No. 418 (B. P. W.).
Fourteenth to Fifteenth street W., both sides, No. 628 (B. P. W.).
Eleventh to Twelfth st., No 628X (B. P. W.).
Fourth to Tenth street W., both sides, No. 642 (B. P. W.).
Fifteenth street to Rhode Island avenue, both sides, No. 669 (B. P. W.).
Nineteenth street to Connecticut avenue W., No. 677 (B. P. W.).
Thirtieth to Thirty-second street W., No. 701 (B. P. W.).
Thirty-first to Thirty-second street W., No. 758 (B. P. W.).
Fifth to Sixth street W., No. 760 (B. P. W. & C.).
Seventh street W., crossing, No. 835 (B. P. W.).
Thirty-second to Thirty-fifth street W., No. 856 (B. P. W.).
Twenty-first to Twenty-third street W., No. 916 (B. P. W.).
Fourteenth street to Vermont avenue W., No. 108 (Commrs.)
Eighth to Ninth street W., No. 476 (Commrs.).
Thirty-fifth st. W. (basins), No. 728 (Commrs.).
Twenty-fifth street to Rock Creek, No. 954 (Commrs.).
North Capitol to Second street W., No. 1468 (Commrs.).
Twenty-seventh to Twenty-eighth street W., No. 1468 (Commrs.).
Twenty-fourth to Twenty-fifth street W., No. 1715 (Commrs.).
Twelfth street E. to B. and O. R. R., No. 1797 (Commrs.).
Fourteenth street W., two siphons, No. 1913 Commrs.).
Eleventh to Twelfth street W., d. l., 1878.
Seventeenth to Eighteenth street, south side, d. l., 1879.
Nineteenth to Twentieth street, north side, d. l., 1880.
Ninth to Tenth street W., d. l., 1880.
Ninth to Tenth street W., south side, d. l., 1882.
Nineteenth to Twentieth street, north side, d. l., 1882.
New Hampshire avenue to Twenty-first street, d. l., 1884.
Nineteenth to Twentieth street, south side, d. l., 1885.
Twenty-second to Twenty-third st., d. l., 1884.
Fourteenth st. to Vermont ave., d. l., 1884.
First to Third street W., d. l., 1886.
New Hampshire avenue to Twenty-first street, d. l., 1886.
Twentieth street W., crossing, d. l., 1887.
Ninth to Tenth street W., d. l., 1888.
Thirty-fourth to Thirty-fifth street (basin), d. l., 1888.
Ninth to Tenth street W., d. l., 1889.
Thirtieth to Thirty-first street, d. l., 1890.
North Capitol to First street E., d. l., 1891
North Capitol to First street W., d. l., 1891.
New Jersey avenue to Fourth st. W., d. l., 1891.
Thirty-sixth to Thirty-seventh street (basin), d. l., 1892.
Fourteenth to Sixteenth st. W., d. l., 1892, Repl.
Thirty-third to Thirty-fourth street, d. l., 1892.
First to Third street W., d. l., 1892.
Thirty-fifth to Thirty-sixth street, d. l., 1892.
Seventh to Eighth street W., d. l., 1893.
Third to Kirby street W., d. l., 1893.
North Capitol to First street W., d. l., 1894.
Thirty-sixth to Thirty-seventh st., d. l., 1894.
Twenty-fifth street to Rock Creek, d. l., 1895.
Twenty-fourth to Twenty-fifth st., d. l., 1895.
Nineteenth street to Connecticut avenue, d. l., 1895, Repl.
Twenty-second to Twenty-third st., d. l., 1895.
Ninth to Tenth street W., d. l., 1896.
Twenty-first to Twenty-second st., d. l., 1896.
Twenty-second to Twenty-third street, d. l., 1897, Repl.
Eighteenth street to Connecticut avenue (basins), d. l., 1897.
Twenty-first to Twenty-second st., d. l., 1897.
Ninth to Tenth street W., d. l., 1897.
Thirty-fifth street W., crossing, d. l., 1897.
Second to Third street W., siphon, d. l., 1897.

N street S.

First to Canal street W., No. 25 (Commrs.).
Four-and-a-half to Sixth street, both sides, No. 365 (B. P. W.).
Second to Third st. E., No. 36X (Commrs.).
Second to Four-and-a-half st., No. 730 (Commrs.)
South Capitol to One-half street E., No. 954 (Commrs.).
One-half to First st. E., No. 956 (Commrs.).
New Jersey ave. to First st. E., No. 956 (Commrs.).
Four-and-a-half street to Potomac River, No. 1797 (Commrs.).
Second to Third st. W., No. 2206 (Commrs.).
Second to Canal street W., d. l., 1885.
Second to Canal street E., d. l., 1887.
Third to Fourth street E., d. l., 1893.
South Capitol to First street E., d. l., 1894.
Four-and-a-half to Sixth street W., d. l., 1894.
Delaware avenue to Canal street W., d. l., 1895.
Eleventh to Twelfth street E., d. l., 1896.
Third to Four-and-a-half st. W., d. l., 1896, Repl.
Ninth to Tenth street E., d. l., 1896.
Four-and-a-half to Sixth st. W., d. l., 1897, Repl.
Canal street W. (crossing), d. l., 1897.
Third to Four-and-a-half street W., d. l., 1897.

O street N.

Thirty-second to Thirty-fifth street W., No. 418 (B. P. W.)
Twenty-second to Twenty-third street W., No. 517 (B. P. W.).
Thirty-second to Potomac street W., No. 637 (B. P. W.).
Sixth to Eighth street W., both sides, No. 643 (B. P. W.).
Fifteenth to Seventeenth street W., No. 759 (B. P. W.).
First to Sixth street W., No. 786 (B. P. W.).
North Capitol to First st. W., No. 831 (B. P. W.).
Sixth to Seventh street W., No. 835X (B. P. W.).
Twenty-ninth to Thirty-second street, No. 835 (B. P. W. & C.).
Eighth to Thirteenth st. W., No. 868 (B. P. W).
Fourth to Fifth street W., No. 910 (B. P. W.).
Thirtieth st. W. (crossing), No. 1034 (B. P. W.).
First to Sixth street W., No. 5 (Commrs.).
Seventh to Eighth street W., No. 5 (Commrs.).
Third to Seventh street W., No. 476 (Commrs.).
Thirtieth to Thirty-first street W., No. 591 (Commrs.).
First street W. to Florida avenue E., No. 601 (Commrs.).
Fourth to Fifth street W. (basin), No. 1256 (Commrs.).
First street W. (basins), No. 1256 (Commrs.),
Twentieth to Twenty-first street W., No. 1468 (Commrs.).
Thirty fifth to Thirty-sixth street W., No. 1566 (Commrs.).
Twenty-First to Twenty-second street, No. 1715 (Commrs.).
Twenty-first to Twenty-second street W., No. 1723 (Commrs.).
Twelfth street E. to B. and O. R. R., No. 1797 (Commrs.).
Eighth street W., 2 siphons, No. 1913 (Commrs.).
Twelfth to Thirteenth street W., south side, d. l., 1876.
Eleventh to Twelfth street W., south side, d. l., 1877.
Twenty-first to Twenty-second street, north side, d. l., 1878.
Ninth to Tenth street W., south side, d. l., 1879.
Thirty-fifth to Thirty-sixth street, north side, d. l., 1880.
Thirty-fifth to Thirty-sixth street, north side, d. l., 1883.
Seventh to Eighth st. W., south side, d. l., 1883.
Twentieth to Twenty-first street W., d. l., 1882.
Twentieth to Twenty-first street, north side, d. l., 1883.
Fifteenth to Sixteenth street W., d. l., 1883.
North Capitol to First street E., d. l., 1885.
Eighth to Ninth street W., d. l., 1886.
Twenty-ninth to Thirtieth street W., d. l., 1886.

Ninth to Tenth street W., d. l., 1887.
Eleventh to Twelfth street W., d. l., 1887.
Twentieth to Twenty first street W., d. l., 1888.
Eleventh to Twelfth street W., d. l., 1888.
Fifteenth to Sixteenth st. W., d. l., 1889, Repl.
Sixteenth to Seventeenth st. W., d. l., 1889, Repl.
North street, d. l., 1889.
Twelfth to Thirteenth street W., d. l., 1889.
Twenty-second street to Rock Creek, d. l., 1889.
New Hampshire ave. to Twentieth st., d. l., 1890.
Fifteenth to Sixteenth st. W., d. l., 1891, Repl.
Thirty-third to Thirty-fourth street, d. l., 1891.
Sixteenth to Seventeenth st. W., d. l., 1892, Repl.
Sixteenth to Seventeenth street W., d. l., 1893.
Seventh to Eighth street W., d. l., 1893.
Thirty-fourth to Thirty-fifth street., d. l., 1894.
Twenty-first to Twenty-second street, d. l., 1894, Repl.
Thirty-third to Thirty-fourth street, d. l., 1894.
North Capitol to First street E., d. l., 1894.
Vermont ave. to Thirteenth st. W., d. l., 1894.
Thirty-sixth to Thirty-seventh st. W., d. l., 1894.
Thirty-third to Thirty-fourth street, d. l., 1895.
Thirty-sixth to Thirty-seventh street, d. l., 1895.
First to Third street W., d. l., 1896.
Fifteenth to Sixteenth st. W., d. l., 1896, Repl.
North Capitol to First street E., d. l., 1897.
Twenty-second street to Rock Creek, d. l., 1897.
Twenty-seventh to North street, d. l., 1897.
Thirty-second to Thirty-third street (basin), d. l., 1897.

O street S.

One-half to First street E., No. 1270 (Commrs.).
Four-and-a-half street to Potomac River, No. 365 (B. P. W.).
South Capitol to One-half street E., d. l., 1894.
Eleventh to Twelfth street E., d. l., 1894.
First to Canal street W., d. l., 1894.
Canal street to Delaware avenue W., d. l., 1895.
Eleventh to Twelfth street E., d. l., 1896.
Four-and-a-half to Sixth st. W., d. l., 1897, Repl.

P street N.

Thirty-second to Thirty-fifth street W., No. 418 (B. P. W.).
Rock Creek Bridge, east end (basins), No. 517 (B. P. W.).
Twenty-second street W. (basins), No. 517 (B. P. W.).
Twenty-second street to Rock Creek Bridge, No. 517 (B. P. W.).
Rock Creek Bridge, west of, No. 517 (B. P. W.).
Rock Creek Bridge, west end of (basins), No. 517 (B. P. W.).
Twenty-eighth to Thirtieth street, No. 533 (B. P. W.).
Fifth street W., crossing, No. 558 (B. P. W.).
Seventeenth to Nineteenth street W., No. 677 (B. P. W.).
First street W., crossing, No. 754 (B. P. W.).
Third to Fifth st. W., No. 760 (B. P. W. & C.).
Sixth to Seventh street, No. 760 (B. P. W.).
Sixth to Tenth street W., No. 835 (B. P. W.).
Thirteenth to Seventeenth street W., No. 840 (B. P. W.).
Ninth to Tenth street W, No. 1003 (B. P. W.).
Eighteenth st. W., crossing, No. 1034 (B. P. W.).
Fourteenth street to Kingman Court W., No. 1094 (B. P. W. & C.).
Twenty-ninth to Thirtieth street W., No. 242 (Commrs.).
Thirty-second to Thirty-fifth street W., No. 577 (Commrs.).
North Capitol to First street W., No. 589 (Commrs.).
Eighth to Ninth street, W., No. 826 (Commrs.).
Columbia to Tenth st. W., No. 826 (Commrs.).
Twenty-sixth to Mill st. W., No. 954 (Commrs.).
Columbia to Ninth st. W., No. 954 (Commrs.).
Fifteenth to Seventeeth street W., No. 972 (Commrs.).
Thirteenth to Fourteenth street W., No. 1270 (Commrs.).
Tenth to Eleventh st. W., No. 1566 (Commrs.).
Fifteenth to Seventeenth street W., No. 1722 (Commrs.).
Third street to New Jersey avenue W., No. 2206 (Commrs.).
Thirty-first to Valley st. W., No. 2394 (Commrs.).
Sixth to Eighth street W., August 30, 1877.
Third street W., crossing, d. l., 1877.
Sixth to Eighth street W., d. l., 1877.
Thirty-fifth to Thirty-sixth street W., d. l., 1878.
North st. to Rock Creek, north side, d. l., 1879.
Twenty-ninth to Thirtieth street, south side, d. l., 1879.
Fifth to Sixth street W., d. l., 1880.
Twentieth to Twenty-first street, north side, d. l., 1882.
Twenty-eighth to Twenty-ninth street, south side, d. l., 1883.
Ninth to Tenth street W., north side, d. l., 1883.
Dupont Circle to Twentieth street, south side, d. l., 1880.
Twenty-ninth to Thirtieth street, north side, d. l., 1880.
Twentieth to Twenty-first street, north side, d. l., 1881.
North Capitol to First street W., d. l., 1885.
Rock Creek to North street (basin), d. l., 1886.
Seventh to Eighth street W., d. l., 1886.
Thirty-second to Thirty-third street, d. l., 1886.
Thirty-fourth to Thirty-fifth street, d. l., 1887.
Twenty-fourth to Twenty-sixth st. W., d. l., 1889.
North Capitol to First street E., d. l., 1889.
Fifth to Sixth street W., d. l., 1889.
Rock Creek to Twenty-sixth street, d. l., 1889.
Thirty-sixth to Thirty-seventh street, d. l., 1890.
Twenty-first to Twenty-second street, d. l., 1890.
Tenth to Eleventh street W., d. l., 1890.
Eleventh to Twelfth street W., d. l., 1890.
Twelfth to Thirteenth street W., d. l., 1891.
Columbia to Eleventh street W., d. l., 1892, Repl.
Fourth to Fifth street W., d. l., 1892, Repl.
Twenty-sixth to Twenty-seventh st., d. l., 1892.
Metropolitan R. R. Co.'s power house (basin), d. l., 1892.
North Capitol to First street E., d. l., 1893.
Mill street W. (basin), d. l., 1894.
Mill to Twenty-eighth street W., d. l., 1894.
First to Third street W., d. l., 1894.
Fifteenth to Sixteenth st. W., d. l., 1895, Repl.
New Jersey ave. to Fifth st. W., d. l., 1895, Repl.
Eighteenth st. to Dupont Circle, d. l., 1895, Repl.
Fourth to Fifth street W., d. l., 1895, Repl.
Dupont Circle to New Hampshire avenue, d. l., 1895, Repl.
Twenty-first to Twenty-second st., d. l., 1896.
North Capitol to First street W., d. l., 1896.
Thirty-fifth to Thirty-sixth street W., d. l., 1896.
Thirty-sixth to Thirty-seventh street, d. l., 1896.
Twenty-second street W., crossing, d. l., 1896.
Rock Creek to Twenty-sixth st. W., d. l., 1896.
North street to Rock Creek, d. l., 1897.
North Capitol st. to Florida ave., d. l., 1897.
Eighth to Ninth street W., d. l., 1897.
Twenty-first to Twenty-second st., d. l., 1897.
Eighth to Ninth street W., d. l., 1897, Repl.
Seventh to Eighth street W. (siphon), d. l., 1897.
Florida avenue, NE. corner (basin), d. l., 1897.

P street S.

Four-and-a-half street to Potomac River, No. 365 (B. P. W.).
Water street, crossing, d. l., 1896.
Second street W., crossing, d. l., 1892.

Q street N.

Seventeenth to Eighteenth street, bridge, June 10, 1869 (C. W.).
Eighteenth to Twenty-first street W., No. 355 (B. P. W. & C.).
Third street to New Jersey avenue W., No. 407 (B. P. W.).
First street W., crossing, No. 754 (B. P. W.).
Fifth street to New Jersey avenue W., No. 760 (B. P. W. & C.).
Fifth to Eighth st. W., No. 770 (B. P. W. & C.).
Fourteenth to Seventeenth street W., No. 798 (B. P. W.).
Eighth to Ninth street W., No. 835 (B. P. W.).
Sixth to Seventh street W., No. 835 (B. P. W.).
Seventeenth to Nineteenth street W., No. 849 (B. P. W.).
Twenty-first street to Florida avenue, No. 1039 (B. P. W.).

Tenth to Fourteenth street W., No. 1074 (B. P. W. & C.)
Massachusetts avenue to Sixteenth street, No. 1094 (B. P. W. & C.).
Twelfth street to Vermont avenue, No. 589 (Commrs.).
Thirtieth to Thirty-first street, No. 589 (Commrs.).
Thirteenth street to Vermont avenue, No. 590 (Commrs.).
Tenth to Twelfth street W., No. 591 (Commrs.).
Thirty-first to Thirty-second street W., No. 591 (Commrs.).
Seventeenth to Twenty-second street W., No. 599 (Commrs.).
Thirty-first street W., crossing, No. 631 (Commrs.).
First to Third street W., No. 826 (Commrs.).
Sixth to Seventh street W., No. 826 (Commrs.).
Marion street W., No. 826 (Commrs.).
Eighth to Ninth street W., No. 954 (Commrs.).
First street W. to Florida avenue, No. 1468 (Commrs.).
Thirty-third to Thirty-fourth street, No. 1270 (Commrs.).
First street E. to Lincoln avenue, No. 1898 (Commrs.).
Sixth to Seventh street W., No. 1900 (Commrs.).
Third street W., siphon, No. 1913 (Commrs.).
Third to Fourth street E., No. 2181 (Commrs.).
Kingman place to Fourteenth street, d. l., 1875.
Third street W., crossing, d. l., 1877.
Fifth to Sixth street W., north side, d. l., 1879.
Thirtieth to Thirty-first street W., d. l., 1880.
Thirteenth to Fourteenth street W., d. l., 1881.
Fifth street to New Jersey avenue, north side, d. l., 1882.
Fifth street to New Jersey avenue, north side, d. l., 1880.
Twenty-eighth to Twenty-ninth street, center, d. l., 1882.
Vermont avenue to Thirteenth street, south side, d. l., 1882.
Twenty-second street to Massachusetts avenue, d. l., 1883.
Twenty-eighth to Twenty-ninth street, center, d. l., 1883.
Twenty-ninth to Thirtieth street, south side, d. l., 1883.
Twentieth street to Connecticut avenue, south side, d. l., 1883.
Fifth to Sixth street W., north side, d. l., 1885.
Fifth st. to New Jersey ave., north side, d. l., 1880.
Thirteenth to Fourteenth street, north side, d. l., 1881.
Ninth to Columbia street W., d. l., 1885.
Ninth to Columbia street W., d. l., 1886.
Thirty-second to Thirty-third street, d. l., 1887.
Tenth to Eleventh street W., d. l., 1887.
Twenty-ninth to Thirtieth street W., d. l., 1887.
Twenty-eighth to Twenty-ninth st., d. l., 1887.
Eighth to Ninth street W., d. l., 1888.
Thirty-second to Thirty-third street (basin), d. l., 1888.
Valley street W. (basins), d. l., 1888.
Ninth to Tenth street W., d. l., 1889.
Seventeenth to Eighteenth street, d. l., 1889.
Thirty-second to Thirty-third street, d. l., 1889.
Thirty-third to Thirty-fourth street, d. l., 1889.
Third to Fourth street W., d. l., 1890.
Twentieth to Twenty-first street W., d. l., 1891.
Twenty-second to Twenty-third st., d. l., 1891.
Eleventh to Twelfth street, d. l., 1892.
Fourteenth to Fifteenth street, d. l., 1892.
Eighteenth to Nineteenth street, d. l., 1892.
New Jersey ave. to Fifth st. (basin), d. l., 1893.
Twenty-seventh to Twenty-eighth st., d. l., 1893.
Thirtieth to Thirty-first street W. (basin), d. l., 1894.
Thirty-second to Thirty-third street, d. l., 1894.
Seventh to Eighth street W., d. l., 1894, Repl.
Sixth street W., d. l., 1894, Repl.
Twenty-seventh to Twenty-eighth st., d. l., 1894.
Lincoln avenue to First street E., d. l., 1895.
Thirtieth to Thirty-first street, d. l., 1895.
New Hampshire to Connecticut avenue, d. l., 1895, Repl.
Eighteenth street to New Hampshire avenue (basin), d. l., 1895.
Nineteenth st. to New Hampshire ave., d. l., 1896.
Lincoln avenue to First street E., d. l., 1896.
Mill street, from, eastward, d. l., 1896.
Thirty-fourth to Thirty-fifth street, d. l., 1896.
Third to Fourth street E., d. l., 1897.
Twenty-second to Twenty-third st. W., d. l., 1897.
Florida avenue, NW. corner (basin), d. l., 1897.

R street N.

Seventh street to New Jersey avenue W., No. 388 (B. P. W. & C.).
New Jersey avenue to Eighth street W., No. 407 (B. P. W.).
Eighth to Fourteenth st. W., No. 547 (B. P. W.).
Sixteenth st. to Slash Run, No. 624 (B. P. W.).
Fifteenth to Sixteenth street, north side, No. 844 (B. P. W.).
Nineteenth street to Connecticut avenue, No. 849 (B. P. W.).
Fourteenth to Seventeenth street W., No. 867 (B. P. W.).
Nineteenth to Twentieth street W., No. 911 (B. P. W.).
Seventeenth to Eighteenth street W., No. 929 (B. P. W. & C.).
Fourth street to New Jersey avenue, No. 1034 (B. P. W. & C.).
Florida ave., crossing, No. 1050 (B. P. W. & C.).
Fourteenth to Sixteenth street W., No. 1094 (B. P. W. & C.).
Tenth to Twelfth street, No. 587 (Commrs.).
Third st. to Florida avenue, No. 631 (Commrs.).
Thirty-third st. W., crossing, No. 820 (Commrs.).
Third st. to Florida ave. W., No. 954 (Commrs.).
Fourth street W. (basins), No. 1256 (Commrs.).
Fifth street W. (basin), No. 1256 (Commrs.).
First st. E. to Lincoln ave., No. 1267 (Commrs.).
North Capitol to First street W., No. 1270 (Commrs.).
North Capitol street to Lincoln avenue, No. 1270 (Commrs.).
Thirty-third to Thirty-fourth street, No. 1270 (Commrs.).
Twenty-second to Twenty-third street, No. 1468 (Commrs.).
Eighteenth st. W., crossing, No. 1468 (Commrs.).
Thirty-second to Thirty-third street, No. 1468 (Commrs.).
Florida avenue to Twenty-second street, No. 1473 (Commrs.).
Tenth to Twelfth street W., No. 1798 (Commrs.).
Fourth street to New Jersey avenue, No. 1899 (Commrs.).
Fourteenth st. W., siphon, No. 1913 (Commrs.).
Tenth to Eleventh street W., replacing, September 17, 1877.
Fifteenth to Sixteenth street, d. l., 1879.
Fourth street to New Jersey avenue, north side, d. l., 1880.
Connecticut avenue to Twenty-first street, north side, d. l., 1883.
Eighteenth to Nineteenth street, d. l., 1887.
Twenty-first street to Florida avenue, d. l., 1887.
Seventeenth to Eighteenth street, d. l., 1888.
Twenty-first street W., d. l., 1888.
New Jersey avenue to Fifth st., d. l., 1889, Repl.
Vermont ave. to Fourteenth st., d. l., 1889, Repl.
Eighteenth to Nineteenth street, d. l., 1890.
Sixth to Marion street, d. l., 1890.
Fifth street to New Jersey avenue, d. l., 1890.
Third to Fourth street W., north side, d. l., 1891.
First street W. to Florida avenue, d. l., 1891.
New Jersey ave. to Fifth st. W., d. l., 1891, Repl.
First street W., crossing, d. l., 1891.
Ninth to Tenth street W., d. l., 1892, Repl.
Eleventh to Thirteenth st. W., d. l., 1892, Repl.
Twenty-first st. to Florida ave., d. l., 1894.
Thirty-fourth to Thirty-fifth st., d. l., 1895.
Tenth to Eleventh street, d. l., 1896, Repl.
Seventeenth to Eighteenth st., d. l., 1897, Repl.
Florida ave. to Twenty-second st., d. l., 1897.
Florida avenue, crossing, d. l., 1897.
Twentieth st. to Connecticut ave., d. l., 1897.

S street N.

Fifteenth to Sixteenth st., No. 624 (B. P. W.).
Fifteenth to Seventeenth st., No. 767 (B. P. W.).
Seventeenth to Eighteenth street, No. 786 (B. P. W.).

Twelfth to Fourteenth st., No. 820 (B. P. W.).
Sixth to Seventh st. W., No. 835 (B. P. W. & C.).
Eighth to Ninth street, No. 857 (B. P. W.).
Eighteenth to Twentieth street, No. 1050 (B. P. W. & C.).
Eleventh to Twelfth st., No. 1058 (B. P. W. & C.).
Twelfth to Fourteenth st., No. 1058 (B. P. W.).
Fifth to Seventh street, No. 1058 (B. P. W. & C.).
Eleventh street to New Jersey avenue, No. 1058 (B. P. W. & C.).
Seventh to Eighth street W., No. 5 (Commrs.).
Tenth st. to Vermont ave., No. 589 (Commrs.).
Twelfth st. to Vermont ave., No. 590 (Commrs.).
Twentieth street to Connecticut avenue, No. 730 (Commrs.).
Fifth to Sixth street W., No. 826 (Commrs.).
Tenth street W. (basin), No. 826 (Commrs.).
Seventeenth to Eighteenth street W., No. 832 (Commrs.).
Thirty-third to Thirty-fourth street, No. 954 (Commrs.).
Florida to Connecticut ave., No. 2394 (Commrs.).
Ninth to Tenth street, d. l., 1885.
Ninth to Tenth street, d. l., 1889.
Sixteenth to Seventeenth street, d. l., 1890.
Eighteenth to Nineteenth street, d. l., 1890.
Seventh to Eighth street, d. l., 1891.
Eleventh to Twelfth street, d. l., 1892, Repl.
Seventeenth street to New Hampshire avenue, d. l., 1892.
Fifth street to New Jersey avenue, d. l., 1892.
Seventeenth to Eighteenth street, d. l., 1893.
Sixth to Seventh street, d. l., 1894.
Seventh to Eighth street, d. l., 1894, Repl.
Twelfth street W., crossing, d. l., 1894.
New Hampshire avenue to Seventeenth street, d. l., 1894.
Eighteenth to Nineteenth street, d. l., 1894.
Florida avenue to Phelps place, d. l., 1895.
Twentieth st. to Connecticut ave., d. l., 1895.
Florida avenue to Phelps place, d. l., 1896.
Sixth to Seventh street W., d. l., 1897, Repl.
Sixth to Seventh street W., d. l., 1897.

T street N.

Fourteenth street to New Hampshire avenue No. 290 (B. P. W.).
New Hampshire avenue to Eighteenth street, No. 766 (B. P. W.).
Fourteenth to Nineteenth st., No. 766, (B. P. W.).
Seventeenth to Nineteenth street, No. 766 (B. P. W. & C.).
Tenth to Thirteenth street, No. 803 (B. P. W.).
Seventh to Eighth street, No. 835 (B. P. W. & C.).
Eighth to Ninth street, No. 857 (B. P. W.).
Tenth to Thirteenth street, No. 1066 (B. P. W.).
Tenth to Thirteenth street, repairs, No. 1066 (B. P. W. & C.).
Thirteenth to Fourteenth st., No. 5 (Commrs.).
Eighth to Tenth street, No. 587 (Commrs.).
Thirteenth to Fifteenth st., No. 954 (Commrs.).
Thirteenth street to Vermont avenue, No. 972 (Commrs.).
Twelfth to Thirteenth street W., No. 1183 (Commrs.).
Sixth to Seventh street, replacing,[1] No. 1195 (Commrs.).
Juniper street (basin), No. 1256 (Commrs.).
Larch street (basin), No. 1256 (Commrs.).
Tenth to Twelfth st. W., No. 1267 (Commrs.).
Harewood ave. (basins), No. 1473 (Commrs.).
First street to LeDroit avenue W., No. 1566 (Commrs.).
Fifteenth street to New Hampshire avenue, No. 1797 (Commrs.).
Fourth to Fifth street E., No. 2181 (Commrs.).
Seventeenth street to New Hampshire avenue, north side, d. l., 1877.
Eleventh to Twelfth street W., d. l., No. 1878
Fourteenth to Fifteenth st., north side, d. l., 1878
Ninth to Tenth street W., d. l., 1878.
Twelfth to Thirteenth street, d. l., 1887.
Thirteenth to Fourteenth street, d. l., 1887.
Fourteenth to Fifteenth street, d. l., 1889, Repl.
Fourteenth to Fifteenth street, d. l., 1890, Repl.
Florida avenue to Linden street, d. l., 1891.
Fifth to Sixth street W., d. l., 1891.
Sixth street to Florida avenue W., d. l., 1891.
Florida avenue to Juniper street, d. l., 1892.
Thirty-third to Thirty-fourth street, d. l., 1894.
Thirty-fourth to Thirty-fifth street, d. l., 1894.
Harewood avenue to Linden st., d. l., 1894, Repl.
Seventh to Eighth street, d. l., 1894.
Eighth to Ninth street W., d. l., 1895, Repl.
First to Le Droit avenue W. (basin), d. l., 1895.
Seventh to Eighth street, d. l., 1896, Repl.

U street N.

Thirteenth to Fourteenth street, No. 1034 (B. P. W. & C.).
Eleventh to Twelfth st., No. 1050 (B. P. W. & C.).
Sixteenth to Seventeenth street, pump house, No. 110 (Commrs.).
Ninth to Tenth street W., No. 296 (Commrs.).
Twelfth to Thirteenth st., No. 587 (Commrs.).
Tenth to Thirteenth street, No. 591 (Commrs.).
Fourteenth to Fifteenth street W., No. 630 (Commrs.).
Thirty-second to Thirty-sixth street, No. 1270 (Commrs.).
First st. to Le Droit ave., No. 1797 (Commrs.).
Sixteenth to Seventeenth street, north side, d. l., 1878.
Ninth street to Vermont avenue, north side, d. l., 1879.
Ninth to Tenth street, d. l., 1888.
Thirty-first to Valley street, d. l., 1890.
Thirtieth to Thirty-first street, d. l., 1891.
Thirteenth to Fourteenth street, d. l., 1892.
Thirty-first street to Avon place, d. l., 1893.
Valley to High street, d. l., 1893.
Thirteenth to Fourteenth street, d. l., 1893.
Sixteenth to Seventeenth street, d. l., 1893.
Avon place to Thirty-fifth street, d. l., 1894.
Fourteenth to Fifteenth street, d. l., 1895.
Fourteenth to Fifteenth street, d. l., 1895.
Fifteenth to Sixteenth street, d. l., 1896.
Sixteenth to Seventeenth st. (basins), d. l., 1897.
Florida avenue, NE. corner (basin), d. l., 1897.

V street N.

Seventeenth street to Florida avenue, No. 855 (B. P. W. & C.).
New Hampshire avenue to Seventeenth street, No. 849 (B. P. W. & C.).
Thirteenth to Fourteenth street, No. 1034 (B. P. W. & C.).
Thirteenth to Fourteenth street, No. 1050 (B. P. W. & C.).
Eleventh to Twelfth st., No. 1050 (B. P. W. & C.).
Tenth to Thirteenth street, No. 296 (Commrs.).
Fourteenth to Fifteenth st., No. 1170 (Commrs.).
Fourteenth to Fifteenth st., No. 1195 (Commrs.).
First st. W. to Flagler pl., No. 1749 (Commrs.).
Thirteenth to Fourteenth street, No. 1752 (Commrs.).
Eleventh to Twelfth street, July 27, 1877,
Eleventh to Twelfth st., south side, d. l., 1881.
Thirteenth to Fourteenth street, north side, d. l., 1883.
Vermont avenue to Tenth street, d. l., 1886.
Florida avenue to Tenth street, d. l., 1887.
Vermont avenue to Tenth street, d. l., 1889.
Fourteenth to Fifteenth street, d. l., 1893.

W street N.

Eleventh to Twelfth st., No. 402 (B. P. W. & C.).
Fourteenth to Fifteenth street, No. 849 (B. P. W. & C.).
Twelfth to Thirteenth st., No. 587 (Commrs.).
Eleventh to Twelfth street, No. 589 (Commrs.).
Twelfth to Thirteenth st., No. 590 (Commrs.).
Florida ave. to Twelfth st., No. 591 (Commrs.).
Thirteenth street, crossing west of, No. 1752 (Commrs.).
Thirteenth to Fourteenth street, south side, d. l., 1883.
Tenth to Eleventh street, d. l., 1887.
Tenth to Eleventh street, d. l., 1891.
Tenth to Eleventh street, d. l., 1893.
First street W., d. l., 1894.

[1] Original sewer constructed under contract with B. P. W.

Acker street.

Sixth to Seventh street E., d. l., 1892.

Adams street, Anacostia.

Washington to Jackson st., No. 1386 (Commrs.).
Jackson to Jefferson st., No. 1182 (Commrs.).
Jackson street (basin), d. l., 1897.

Albany street.

Flagler place to Le Droit avenue, No. 2325 (Commrs.).
Fourth to Fifth street E., No., 2217 (Commrs.).

Avon place.

Cambridge to U street, No. 1716 (Commrs.).
U to Irving street, d. l., 1893.
U to Irving street, d. l., 1894.

Bacon street.

Fourteenth to Fifteenth street, d. l., 1894.
Fourteenth to Fifteenth street, d. l., 1895.

Bancroft place.

Connecticut avenue to Phelps place, d. l., 1895.

Bank street.

M to Prospect street, center, d. l., 1876.
M to Prospect street, d. l., 1890.

Benning road.

Eastern Branch to abattoir works, d. l., 1891.
Sixteenth to Seventeenth street, d. l., 1894.
Fifteenth to Sixteenth street, d. l., 1895.
Fifteenth to Sixteenth st. (basins), d. l., 1895.
Sixteenth to Seventeenth street, d. l., 1896.

Binney street.

Fourteenth to Fifteenth street W. No. 1723 (Commrs.).
Fourteenth to Fifteenth street W., d. l., 1893.
Fourteenth to Fifteenth street W., d. l., 1895.
Fourteenth to Fifteenth street W., d. l., 1897.

Bismark street.

Thirteenth street to Sherman avenue, No. 2205 (Commrs.).

Bladensburg road.

H street, crossing, No. 1267 (Commrs.).
Florida ave. to Levis st., No. 1267 (Commrs.).
Florida ave. to Olivet road, No. 1473 (Commrs.).
H to King street, d. l., 1887.
H to King street (basin), d. l., 1891.
1028 to 1042, rear of, d. l., 1894.
Bennings road (basin), d. l., 1895.
Florida ave., northward from (basin), d. l., 1896.
Alley in rear of road, d. l., 1897.

Blake street.

Fifteenth to Sixteenth street W., d. l., 1889.

Bohrer street.

Spruce street, at, d. l., 1896.

Brentwood road.

Florida avenue to Fourth street E., No. 836 (B. P. W. & C.).
Florida avenue to Fourth street E., No. 2181 (Commrs.).

Brightwood avenue.

Florida to Grant avenue, No. 954 (Commrs.).
Bismark street (basin), No. 1256 (Commrs.).
Irving street (basin), No. 1256 (Commrs.).
Irving to Bismark street, No. 1267 (Commrs.).
Pomeroy street to Florida avenue (basin), No 1473 (Commrs.).
Rock Creek Church road to Whitney avenue No. 2218 (Commrs.).
Quincy to Savannah street, No. 2387 (Commrs.)
Grant ave. to Harvard st., east side, d. l., 1879
Grant to Florida avenue, d. l., 1889.
Pomeroy to Trumbull street, d. l., 1891.
Pomeroy st. to Florida ave., d. l., 1889, Repl.
Trumbull to College street, d. l., 1894.
Sheridan to Farragut street, d. l., 1894.
Florida to Grant avenue, d. l., 1895.
Florida avenue (basin), d. l., 1894.
Grant to Howard avenue, d. l., 1895.
Irving to Howard street, d. l., 1895.
Trumbull to Howard street., d. l., 1895.
Sheridan street to Whitney avenue, d. l., 1895.
Rock Creek Church road to Whitney avenue (basin), d. l., 1896.
Whitney to Sheridan avenue, d. l., 1896.
Mount Pleasant to Scott avenue, d. l., 1896.
Farragut to Sheridan street, d. l., 1896.
Whitney avenue, NW. corner (basin), d. l., 1896.
Grant avenue, crossing, d. l., 1896.

Brown street.

Howard to Sheridan street, d. l., 1894.

Bunker Hill road.

Fourth to Seventh street, d. l., 1897.

Buchanan street, Anacostia.

Monroe street to Eastern Branch, d. l., 1887.

California avenue.

Connecticut avenue to Columbia road, No. 1195 (Commrs.).
Connecticut avenue to Phelps place, No. 1723 (Commrs.).
Columbia road to Le Roy place, d. l., 1889.
Eighteenth to Nineteenth street W., d. l., 1890.
Columbia road to Phelps place, d. l., 1892.

California street.

First to Second street, d. l., 1891.

Cambridge street.

Thirtieth street to Avon place, No. 1716 (Commrs.)

Canal street.

Maryland avenue to South Capitol street, No. 1012 (B. P. W.).
M to N street, No. 24 (Commrs.).
M to N street, No. 29 (Commrs.).
B to First st. W. (basins), No. 976 (Commrs.).
C street S. (basins), No. 1171 (Commrs.).
D street S. (basins), No. 1171 (Commrs.).
N st to Eastern Branch, No. 2360 (Commrs.).
M to N street, east side, d. l., 1892.
South Capitol street (basin), d. l., 1889.
Delaware avenue to South Capitol street (basins), d. l., 1890.
M to N street S., d. l., 1895.
E st. S. (basin), NE. and SE. corners, d. l., 1896.
First and C streets, d. l., 1897.
L street, SE. corner (basin), d. l., 1897.

Caroline place.

Fifteenth to Sixteenth street, d. l., 1879.

Carroll street.

First to Second street E., No. 954 (Commrs.).

Cecil alley.

Water to Grace street, d. l., 1877.
Water to Grace street, d. l., 1890.

Cedar street.

Eighteenth to Nineteenth street, d. l., 1893.

Center street.

Oak street to Fourteenth street extended, No. 1257 (Commrs.).
Howard ave. to Fourteenth st., d. l., 1894.
Howard ave. to Fourteenth st., d. l., 1895.

Champlain avenue.

Florida ave. to Superior st. No. 1182 (Commrs.).
Florida ave. to Superior st. No. 1256 (Commrs.).
Superior street, north of, d. l., 1885.
Superior to Erie street, d. l., 1889.
Florida ave. to Columbia road (basin), d. l., 1890.
Superior to Erie street (basins), d. l., 1894.

Chapin street.

Fourteenth to Fifteenth street W., No. 954 (Commrs.).
Fourteenth to Fifteenth street W., d. l., 1886.
Fourteenth to Fifteenth street W., d. l., 1889.

Cincinnati street.

Eighteenth st. to Rock Creek Bridge, d. l., 1896.

Clifton street.

Thirteenth to Fourteenth street, No. 832 (Commrs.).
Thirteenth street, crossing, d. l., 1892.
Thirteenth to Fourteenth street, d. l., 1896.

Columbia avenue.

Erie to Huron street, No. 1716 (Commrs.).
Erie to Huron street, d. l., 1893.
Erie to Morris street, d. l., 1894.

Columbia road.

Florida to Wyoming ave., No. 956 (Commrs.).
Florida avenue to Woodley lane (basins), No. 957 (Commrs.).
Eighteenth street to Champlain avenue, No. 1270 (Commrs.).
Fourteenth to Fifteenth street, d. l., 1895.

Columbia street.

O to Q street, No. 871 (B. P. W.).
P to Q street, No. 826 (Commrs.).
O to P street, d. l., 1886.
O to P street, d. l., 1890.
Thirteenth to Fourteenth st., No. 832 (Commrs.).
Fourteenth to Fifteenth st., No. 1270 (Commrs.).
Thirteenth to Fourteenth street, d. l., 1896.

Congress Heights.

Schoolhouse for, d. l., 1896.

Connecticut avenue.

K street to Slash Run sewer, September 1, 1870 (C. W.).
K to L street N., No. 459 (B. P. W.).
H to L street, No. 696 (B. P. W.).
Twentieth to R street, No. 849 (B. P. W.).
L to M street, west side, No. 990 (B. P. W.).
Q to R street, No. 1169 (Commrs.).
California to Wyoming avenue, No. 1195 (Commrs.).
R to S street, No. 1468 (Commrs.).
L street, siphon, No. 1913 (Commrs.).
Dupont circle, siphon, No. 1913 (Commrs.).
M street, siphon, No. 1913 (Commrs.).
Woodley road to Kalorama avenue, No. 2394 (Commrs.).
N to P street, west side, d. l., 1878.
Eighteenth street to Rhode Island avenue, east side, d. l., 1880.
R to S street, west side, d. l., 1882.
N to P street, east side, d. l., 1883.
Massachusetts ave. to Q st., west side, d. l., 1883.
R to Q street, d. l., 1885.
R to S street, d. l., 1886.
Rhode Island avenue to N street, d. l., 1887.
Kalorama avenue to Woodley road, d. l., 1887.
R to S street, d. l., 1888.
Woodley lane, d. l., 1888.
K to L street, d. l., 1890.
N street to Massachusetts avenue, d. l., 1890.
H to I street, d. l., 1891.
Kalorama avenue to Woodley road, d. l., 1893.
Q to R street, d. l., 1894.
Bancroft place to Florida avenue, d. l., 1895.
Bancroft to Le Roy place, d. l., 1895.
N street to Dupont circle, d. l., 1895, Repl.
California avenue (basin), d. l., 1895.
Le Roy place (basin), d. l., 1895.
Bancroft place (basin), d. l., 1895.
Florida avenue (basin), d. l., 1895.
Rhode Island ave. to M st. (basin), d. l., 1895.
S street (siphon), d. l., 1896.
Florida avenue to Le Roy place, d. l., 1897.
Q to R street, d. l., 1897.
N street to Dupont circle (siphon), d. l., 1897.

Corcoran street.

Eighteenth to Nineteenth st., No. 355 (B. P. W.).
Thirteenth to Fourteenth st., No. 578 (B. P. W.).
Fourteenth to Sixteenth street W., N., 1094 (B. P. W. & C.).
Fifteenth to Sixteenth st., No. 5 (Commrs.).
Fifteenth to Seventeenth street, No. 601 (Commrs.).
Fourteenth to Fifteenth street, south side, d. l., 1878.
Seventeenth street to New Hampshire avenue, d. l., 1887.
Thirteenth to Fourteenth st. (basin), d. l., 1888.
Eighteenth to Nineteenth street, d. l., 1891.
Seventeenth street to New Hampshire avenue, d. l., 1892.
Eighteenth to Nineteenth st., d. l., 1893, Repl.
Fourteenth to Fifteenth street, d. l., 1893.
Eighteenth to Nineteenth street, d. l., 1894.

Decatur street.

North Capitol to First street (basin), d. l., 1893.

Delaware avenue.

B to C street N., No. 514 (B. P. W.).
C street to Massachusetts avenue N., No. 1047 (B. P. W. & C.).
F to H street N., No. 50 (Commrs.).
Chicago to G street N., No. 51 (Commrs.)
H to K street N., No. 51 (Commrs.).
F to G street S., No. 593 (Commrs.).
G to K street S., No. 730 (Commrs.).
D to E street S., No. 954 (Commrs.).
D to E street N., No. 954 (Commrs.).
I street S. (basin), No. 957 (Commrs.).
G to H street N. (basin), No. 1171 (Commrs.).
C street S. (basins), No. 1171 (Commrs.).
Canal street S. (basin), No. 1171 (Commrs.).
H street S. (basins), No. 1256 (Commrs.).
I to K street S., No. 1270 (Commrs.).
K street N., crossing, No. 1468 (Commrs.).
M street S., crossing, No. 1473 (Commrs.).
E to F street N., No. 1797 (Commrs.).
B to C street N., d. l., 1877.
C street S., crossing, d. l., 1885.
C street to Canal S., d. l., 1885.
G street S. (basin), d. l., 1889.
Canal street S., d. l., 1890.
Canal street S. (basins), d. l., 1890.
B to C street N., d. l., 1891.
M street S. (basin), d. l., 1892.
F to G street S., d. l., 1893.
M to N street S., d. l., 1894.
K to L street S., d. l., 1894.
L to M street S., d. l., 1895.
C to D street N., d. l., 1896.
B to C street N., d. l., 1896.
Second and M streets N., crossing, d. l., 1896.
H to I street S., d. l., 1897.
N to O street S., d. l., 1897.

Huntington place.

University place to Fourteenth st., d. l., 1896.
University place to Fourteenth st., d. l., 1897.

Illinois avenue.

Brandywine to Flint st., No. 2390 (Commrs.).

Indiana avenue.

Sewer in Indiana avenue from First to Third street, across square No. 532, in Judiciary square, G and Sixth street: Third and D street NW., July 26, 1832 (C. W.), July 2, 1837.
D street at Third street, August 21, 1839, May 9, and August 5, 1844.
Second st. from C to D st., November 8, 1847.
Fourth street from E to G street, April 5, 1849.
Third and D street, April 12, 1850.
Square No. 532, October 3, 1851, March 19, 1852, August 16, 1853.
G street NW., from Fifth to Sixth street, August 16, 1853.
Sixth street NW., from G street to Massachusetts avenue, August 16, 1853.
Square No. 532, May 16, 1857.
G street NW., from Fifth to Sixth street, September 9, 1857.
Sixth st., from G to I st., September 9, 1857.
Sixth st., from I to L st., January 13, 1865.
Judiciary square, act of Congress, March 15, 1856.
Indiana avenue, construct culvert in, act of Congress August 12, 1848, and August 18, 1856.
First street (basins), No. 728 (Commrs.).
Second street (basins), No. 728 (Commrs.).
C street (basin), No. 728 (Commrs.).
Second to Third street, No. 954 (Commrs.).
First to Second street, north side, d. l., 1878.
First to Second street, north side, d. l., 1879.

Iowa circle.

Rhode Island to Vermont avenue, d. l., 1876.

Irving street.

Seventh to Eighth street, No. 1267 (Commrs.).
Thirtieth st. to Avon place, No. 1723 (Commrs.).
Sherman avenue to Thirteenth st., d. l., 1897.

Ivy street.

South Capitol street to New Jersey avenue, d. l., 1894. (See Square No. 693.)

Jackson street, Anacostia.

Fillmore to Madison street, No. 1386 (Commrs.).
Fillmore to Monroe street, d. l., 1894.
Adams to Fendall street (basin), d. l., 1897.
Taylor to Fendall street (basin), d. l., 1897.

Jefferson street, Anacostia.

Adams to Taylor street, No. 1182 (Commrs.).
Polk to Pierce street, No. 1797 (Commrs.).
Monroe to Fillmore st., No. 1797 (Commrs.).
Fillmore to Pierce street, d. l., 1886.
Adams to Taylor street, d. l., 1897.
Taylor street, intersection of, d. l., 1897.
Taylor street, south of, d. l., 1897.

Jefferson place.

Eighteenth to Nineteenth street, d. l., 1879.
Eighteenth to Nineteenth street, d. l., 1880.

Jefferson street.

K street to canal, No. 860 (B. P. W.).
K to M street, No. 860 (B. P. W.).
Water street to Chesapeake and Ohio Canal, d. l., 1894.
M to Water street, d. l., 1895.

Johnson place.

R to S street, d. l., 1889.
R to S street, d. l., 1893.
R to S street, d. l., 1896.

Kalorama avenue.

Woodley road, crossing, d. l., 1881.
Columbia road to Eighteenth street, d. l., 1895.

Kenesaw avenue.

Fourteenth to Fifteenth st., No. 954 (Commrs.).
Sixteenth to Seventeenth street, siphon, No. 1913 (Commrs.).
Sixteenth street to Rock Creek, No. 2214 (Commrs.).
Fourteenth to Sixteenth street, d. l., 1890
Thirteenth st. to Sherman avenue, d. l., 1895.
Thirteenth to Fourteenth street, d. l., 1895.
Thirteenth street to Sherman ave., d. l., 1896.
Fifteenth to Sixteenth street W., d. l., 1896.
Rock Creek to Sixteenth street, d. l., 1897.

Kentucky avenue.

B street to South Carolina avenue, d. l., 1893.
E to Fourteenth street, 1894, D. C. inspection.
B street to East Capitol street, d. l., 1894.
Pennsylvania to Georgia avenue, d. l., 1894.
East Capitol to B street, d. l., 1895.
Pennsylvania to Georgia avenue, d. l., 1895.
East Capitol to B street, d. l., 1896.
Thirteenth street E. (basin), d. l., 1896.
C street, NW. and SW. corners, d. l., 1896.
Thirteenth street, crossing, d. l., 1896.

Kenyon street.

Thirteenth to Fourteenth street, d. l., 1895.
Thirteenth to Fourteenth street, d. l., 1896.
Thirteenth st. to Sherman avenue, d. l., 1896.

Keokuk street.

Eighth to Ninth street, No. 2217 (Commrs.).

Kingman place.

P to Q street, No. 1270 (Commrs.).
P to Q street, d. l., 1877.
P to Q street, d. l., 1895, Repl.
P to Q street, siphon, d. l., 1896.

Kirby street.

New York ave. to O st., No. 136 (Commrs.).
New York ave. to N st., No. 1723 (Commrs.).

Lamar street.

Eslin to Morgan street, d. l., 1897.

Lansing street.

Queen to Duncan street, d. l., 1897.

Larch street.

Florida avenue to T street, d. l., 1891.

Laurel avenue.

Piney Branch road, from, westwardly, No. 1267 (Commrs.).
Piney Branch road at, d. l., 1893.

Lawrence street.

Eighteenth to Nineteenth street, d. l., 1883.
Eighteenth to Nineteenth st. (basins), d. l., 1891

Le Droit avenue.

(See Second street W.)

Le Roy place.

Columbia road to Phelps place, d. l., 1891.
Columbia road to Phelps place, d. l., 1896.
Columbia road to Phelps place, d. l., 1897.
Phelps place, NE. corner (basin), d. l., 1897.

Levis street.

Bladensburg road to Trinidad ave., d. l., 1893.

Lincoln avenue.

Florida avenue to R street, No. 1385 (Commrs.).
Randolph to R street, No. 1715 (Commrs.).
North Capitol street (basin), d. l., 1891.
Truxton circle to R street, d. l., 1891.

Linden street.

(See Fourth street W.)

Louisiana avenue.

Sixth to Seventh street, May 3, 1866 (C. W.).
Ninth to Tenth st. (basin), No. 826 (Commrs.).
Sixth to Seventh street, No. 1270 (Commrs.).
Sixth to Seventh street, d. l., 1892.

Lydecker avenue.

Holmead avenue to Thirteenth street, d. l., 1896.
Eslin street to Sherman avenue, d. l., 1896.

Madison street.

M to N street E. (square No. 448), d. l., 1890.
Fifteenth to Sixteenth street W. (square No. 180), d. l., 1891, Repl.
Seventeenth to Eighteenth street (square No. 156), d. l., 1893.
Thirty-fifth to Thirty-sixth street, d. l., 1897.

Maine avenue.

Four-and-a-half street to Tiber sewer, No. 580 (B. P. W.).
Third to Four-and-a-half st., No. 1806 (Commrs.).

The Mall.

Third to Sixth street, W., No. 565 (B. P. W.).
Smithsonian Grounds, in, No. 316 (Commrs.).

Maple street.

(See T street N.).

Marion street.

P to Q street N., No. 589 (Commrs.).
P to Q street, d. l., 1881.
Q to R street, d. l., 1890.

Market space.

Eighth to Ninth st. W., November 1, 1866 (C. W.).
Canal to M street W., d. l., 1890.

Marshall street.

Sherman avenue to Thirteenth street, d. l., 1896.

Maryland avenue.

Sixth street to Canal W., No. 376 (B. P. W.).
Fifth to Sixth street W., No. 557 (B. P. W.)
First to Third street W., No. 720 (B. P. W.).
Second to Third street E., No. 811 (B. P. W. & C.).
Thirteenth to Fourteenth st., No. 815 (B. P. W.).
Tenth to Thirteen-and-a-half street, No. 854 (B. P. W. & C.).
Thirteenth to Fourteenth street W., No. 1067 (B. P. W.).
Third to Fourth street E., No. 589 (Commrs.).
Third to Four-and-a-half street W., No. 589 (Commrs.).
Seventh to Eighth st. E., No. 730 (Commrs.).
Sixth to Seventh street E., No. 954 (Commrs.).
Thirteenth to Fourteenth street E., No. 1170 (Commrs.).
First to Second street E., No. 1195 (Commrs.).
Elliott street (basin), No. 1256 (Commrs.).
G street N. (basin), No. 1256 (Commrs.).
Fourteenth st. E. (basins), No. 1256 (Commrs.).
Eleventh street E. (basin), No. 1256 (Commrs.).
Twelfth street W., siphon, No. 1913 (Commrs.).
Third to Four-and-a-half street W., No. 2055 (Commrs.).
Thirteenth to Fourteenth street E., d. l., 1878.
Fourteenth to Fifteenth street E., north side, d. l., 1879.
Second to Third street E., d. l., 1885.
Fourteenth to Fifteenth street E., d. l., 1887.
Fourteenth to Fifteenth street E., d. l., 1888.
Thirteenth to Fourteenth street E., d. l., 1889.
Third to Four-and-a-half street W., d. l., 1890.
E street N. (basin), d. l., 1890.
Second to Third street E., d. l., 1891.
Thirteenth to Fourteenth street E., d. l., 1893.
Twelfth to Thirteenth street W., d. l., 1893.
Fourteenth to Fifteenth street E., d. l., 1896.
First to Second street E., siphon, d. l., 1896.
Ninth to Tenth street W., d. l., 1897.

Massachusetts avenue.

Fourth to Fifth, culvert crossing, between, Sept. 30, 1847 (C. W.).
Sixth to Seventh street, Nov. 21, 1867 (C. W.).
Fourteenth to Fifteenth street, Nov. 16, 1868 (C. W.), not constructed.
Ninth to Fifteenth street W., No. 93 (B. P. W.).
New Jersey avenue to Seventh street W., No. 406 (B. P. W.).
Fourteenth to Sixteenth street W., No. 524 (B. P. W.).
Nineteenth to Twenty-second street, north side, No. 654 (B. P. W.).
Eighteenth street to Dupont Circle, No. 677 (B. P. W.).
Delaware avenue to North Capitol street, No. 702 (B. P. W. & C.).
Sixth to Seventh street W., No. 896 (B. P. W.).
Seventh to Eleventh street E., No. 811 (B. P. W. & C.).
Seventeenth to Eighteenth street W., No. 5 (Commrs.).
Eighth to Eleventh St. E., No. 107 (Commrs.).
Third to Fourth street E., No. 587 (Commrs.).
North Capitol to First street W., No. 587 (Commrs.).
Second to Third street E., No. 589 (Commrs.).
Seventh to Eighth street E., No. 589 (Commrs.).
North Capitol street to New Jersey avenue, No. 593 (Commrs.).
Sixth to Seventh street E., No. 954 (Commrs.).
R street N (basin), No. 1171 (Commrs.).
Twenty-second street, W. (basin), No. 1171 (Commrs.).
S to T street N. (basins), No. 1171 Commrs.).
Twenty-third street W. (basin), No. 1256 (Commrs.).
Tenth street E. (basin), No. 1256 (Commrs.).
Twenty-second to Twenty-third street W., No. 1267 (Commrs.).
Twenty-second to Twenty-third street W., No. 1270 (Commrs.).
Twenty-first st. W., siphon, No. 1913 (Commrs.).
Ninth to Eleventh st. E., No. 2056 (Commrs.).
North Capitol to First street E., d. l., 1876.
First to E street E., north side, d. l., 1877.
Third to Fourth street E., d. l., 1877.
Fifth to Sixth street W., north side, d. l., 1881.
Seventeenth to Eighteenth street W., both sides, d. l., 1880.
Sixteenth to Seventeenth street W., south side, d. l., 1881.
Eigtheenth street to Connecticut avenue, south side, d. l., 1880.
Twenty-first to Twenty-second streets, south side, d. l., 1883.
Seventeenth to Eighteenth street W., d. l., 1884.
Second to Third street W., d. l., 1885.
Sixth to Seventh street E., d. l., 1886.
Seventeenth to Eighteenth street W., d. l., 1887.
Sixth to Seventh street E., d. l., 1887.
G street N. (basin), d. l., 1888.
Second to Third street W., d. l., 1889.

Twelfth to Thirteenth st. W., d. l., 1891, Repl.
First to Second street E., d. l., 1891.
Sixth street E., d. l., 1892.
Seventh street E., d. l., 1892.
First to Second street E., d. l., 1892.
Fifth to Sixth street W., d. l., 1893.
Fourth to Fifth street W. (basin), d. l., 1894.
Second street E. (basin), d. l., 1894.
D street to Third street E., d. l., 1894.
Seventeenth to Eighteenth street W. (basins), d. l., 1895.
Sixteenth to Seventeenth street W. (basin), d. l., 1895.
Fifteenth to Sixteenth street E., d. l., 1896.
Fourth to Fifth street W., d. l., 1896.
Sixth to Seventh street W., d. l., 1896, Repl.
Fourth to Fifth street W., d. l., 1896.
Florida avenue NW. corner (basin), d. l., 1896.
Sheridan circle, d. l., 1897.
Third to Fourth street E., d. l., 1897.
A to Thirteenth street E., d. l., 1897.
A to East Capitol street (basin), d. l., 1897.

McLean street.

Third to Four-and-a-half street W., d. l., 1896, Repl. (See square No. 546.)

Mill street.

East to P street, d. l., 1894.
East to Q street, d. l., 1896.

Milwaukee street.

Seventh to Eighth street, d. l., 1897.

Missouri avenue.

Third to Sixth street W., No. 68 (B. P. W.).
Four-and-a-half street W. (basins), No. 728 (Commrs.).
Four-and-a-half to Sixth street W., d. l., 1895.

Monroe street, Anacostia.

Harrison street (basin), No. 1473 (Commrs.).
Harrison street to Eastern Branch (basin), No. 1473 (Commrs.).
Harrison to Washington street, No. 1506 (Commrs.).
Jefferson to Pleasant st., No. 1707 (Commrs.).
Jefferson street to Eastern Branch, d. l., 1879.
Jefferson to Maple street, d. l., 1889.
Jefferson to Washington street, d. l., 1894.
Johnson to Buchanan street, d. l., 1894.
Harrison street to Eastern Branch, d. l., 1896.
Buchanan street to Navy place, d. l., 1897.
Maple avenue to Navy place, d. l., 1897.

Moores lane.

Elm to Wilson street, d. l., 1895.

Morgan street.

Second to Kirby street, d. l., 1894.
Second to Kirby street, d. l., 1895.
Lydecker avenue to Lamar place, d. l., 1897.

Mount Vernon place.

Seventh to Eighth street, south side, No. 587 (B. P. W.).
Seventh to Ninth street, No. 177 (Commrs.).

Myrtle street.

North Capitol to First street, contract No. 1171 (Commrs.).
North Capitol to First street (basin), d. l., 1890.

Navy avenue, Anacostia.

Monroe street, west of, No. 832 (Commrs.).
Nichols avenue to Eastern Branch, No. 1480 (Commrs.).
Shannon place, SW. corner (basin), d. l., 1895.

Newark street.

Fifth to Seventh street W., d. l., 1896.
New Hampshire ave. to Seventh st. W., d. l., 1896.
Fifth to Seventh street W., d. l., 1897.

New Hampshire avenue.

Q to Sherman street, No. 355 (B. P. W. & C.).
I to K street N., No. 408 (B. P. W. & C.).
M to Twenty-first street, No. 615 (B. P. W.).
Massachusetts ave. to R st., No. 768 (B. P. W.).
T to Seventeenth street, No. 766 (B. P. W. & C.).
V to W street N., No. 849 (B. P. W. & C.).
L to M street, No. 580 (Commrs.).
L street (basin), No. 728 (Commrs.).
M street (basin), No. 728 (Commrs.).
R to S street, No. 826 (Commrs.).
Swan street (basin), No. 1171 (Commrs.).
Seventeenth street (basin), No. 1171 (Commrs.).
Riggs street (basin), No 1171 (Commrs.).
Washington circle to L st. No. 1195 (Commrs.).
U street (basins), No. 1256 (Commrs.).
Washington circle to M st., No. 1270 (Commrs.).
Dupont circle, siphon, No. 1913 (Commrs.).
T to U street, No. 2206 (Commrs.).
K to L street, west side, d. l., 1877.
T to U street, both sides, d. l., 1877.
H to I street N., east side, d. l., 1876.
L to M street, east side, d. l., 1879.
O street to Dupont circle, d. l., 1880.
Nineteenth to Twentieth st., east side, d. l., 1881.
L to M street, west side, d. l., 1882.
M to N street, east side, d. l., 1882.
N to O street, west side, d. l., 1884.
P to Q street, east side, d. l., 1880.
Twenty-first to N street, east side, d. l., 1883.
L to M street, east side, d. l., 1889.
L to M street, east side, d. l., 1887.
R street, d. l., 1889.
N to O street, d. l., 1890.
Twentieth street (basin), d. l., 1890.
Dupont circle, d. l., 1890.
H to I street, d. l., 1890.
L to M street, d. l., 1891.
Dupont circle to Q street, d. l., 1892.
Brightwood avenue to Eighth street, D. C. inspection, 1893.
F to G street N., d. l., 1894.
S street to Oregon avenue, d. l., 1894.
Q street to Dupont circle, d. l., 1895.
H to I street, d. l., 1895.
Twenty-first street (basin), d. l., 1895.
M to N street, d. l., 1896.
Oregon avenue to T street, d. l., 1896.
Oregon avenue to S street, d. l., 1897.
M to N street, d. l., 1897.
I street NE. corner (basin), d. l., 1897.
I street, d. l., 1897.

New Jersey avenue.

Q to R street N., No. 407 (B. P. W.).
D to Canal street S., No. 414 (B. P. W.).
F to G street N., west side, No. 625 (B. P. W.).
C street S. (basin), No. 686 (B. P. W.).
D to E street S., No. 712 (B. P. W.).
D to H street N., No. 760 (B. P. W.).
I st. to New York ave. N., No. 760 (B. P. W.).
P to Q street N., No. 760 (B. P. W. & C.).
B to C street N., No. 902 (B. P. W.).
D to G street N., N. 1040 (B. P. W.).
M to N street S., No. 584 (Commrs.).
O to Q street N., No 589 (Commrs.).
E street N. (basin), No. 728 (Commrs.).
Grant to Princeton street, No. 832 (Commrs.).
Howard to Thirteenth st., No. 838 (Commrs.).
Eighth to Irving street, No. 1012 (Commrs.).
L to M street N., No. 1169 (Commrs.).
Pierce street (basin), No. 1171 (Commrs.).
L to M street S., No. 1163 (Commrs.).
K to L street S., No. 1270 (Commrs.).
B to C street S., No. 1468 (Commrs.).
C to D street S., No. 1478 (Commrs.).
N st. to New York ave. N., No. 1723 (Commrs.).
K to L street N. (replacing), No. 1899 (Commrs.).
R st. to Rhode Island ave., east side, d. l., 1888.
Q to R street N., west side, d. l., 1882.
P to Q street N., d. l., 1885.

Q to Franklin street, d. l., 1886.
P street N., d. l., 1887.
D to E street S., d. l., 1887.
O to P street N., d. l., 1887.
C to D street S., d. l., 1889.
O to P street N., d. l., 1889.
E to F street N., d. l., 1890.
Ivy to E street S., d. l., 1891.
New York avenue to L street, d. l., 1892.
D to E street S., d. l., 1892.
Princeton street N., d. l., 1893.
P to Franklin street N., d. l., 1894.
G street N. (basin), d. l., 1894.
B to C street N., d. l., 1894, Repl.
E to F street N., d. l., 1895.
North Carolina avenue (basin), d. l., 1895.

New York avenue.

Fourteenth to Fifteenth street, March 1, 1866 (C. W.).
North Capitol to Seventh street W., No. 80 (B. P. W.).
Fifteenth street (basins), No. 162 (B. P. W.)
Ninth to Fifteenth street, north side, No. 190 (B. P. W.).
Ninth to Fifteenth street W., south side, No. 191 (B. P. W.).
Twentieth st. W., crossing, No. 744 (B. P. W.).
Seventeenth to Eighteenth street W., No. 797 (B. P. W.).
Nineteenth to Twentieth street W., No. 909 (B. P. W.).
Ninth to Fifteenth st. W., No. 177 (Commrs.).
Fourteenth to Fifteenth street W., No. 589 (Commrs.).
Sixth street W. (basin), No. 728 (Commrs.).
Sixth to Seventh street W., No. 826 (Commrs.).
Fourteenth st. W. (basin), No. 1473 (Commrs.).
Ninth to Tenth street W. (basin), No. 1473 (Commrs.).
Seventeenth to Eighteenth street W., d. l., 1886.
Twenty-first to Twenty-second st. W., d. l., 1890.
Seventeenth to Eighteenth street W., d. l., 1891.
Fourteenth to Fifteenth st. W. (basin), d. l., 1894.
North Capitol to First street E., d. l., 1894.
Fourteenth to Fifteenth street W., d. l., 1894.
Nineteenth to Twentieth street W., d. l., 1894.
Ninth to Tenth street W., d. l., 1895, Repl.
Twenty-first to Twenty-second st, W., d. l., 1895.
Tenth street W. (basin), d. l., 1895.
New Jersey avenue to M street N., d. l., 1896.
Thirteenth to Fourteenth street W., d. l., 1896.
M street N., crossing, d. l., 1896.
Florida avenue to B. and O. R. R., d. l., 1897.

Nichols avenue, Anacostia.

(See Monroe street.)

North Capitol street.

B to C street, east side, No. 83 (B. P. W.).
E to O street, No. 832 (B. P. W.).
K street N. (basin), No. 73 (Commrs.).
O to P street, No. 229 (Commrs.).
K to L street, No. 589 (Commrs.).
E street (basins), No. 728 (Commrs.).
H street (basin), No. 728 (Commrs.).
H to Defrees street, No. 730 (Commrs.).
G to H street, No. 826 (Commrs.).
M to N street, No. 826 (Commrs.).
L street (basin), No. 826 (Commrs.).
K street (basins), No. 826 (Commrs.).
Pierce street (basin), No. 1171 (Commrs.).
Q street (basin), No. 1256 (Commrs.).
R street (basis), No. 1256 (Commrs.).
Truxtun Circle (basin), No. 1256 (Commrs.).
R to Randolph street, No. 1715 (Commrs.).
O to P street, replacing, No. 2082 (Commrs.).
North Capitol street sewer, June 30, 1877.
M to N street (embankment over sewer), Dec. 12, 1877.
H to I street, east side, d. l., 1877.
K to L street, d. l., 1886.
B to C street, d. l., 1887.
K to L street, d. l., 1887.
N to O street, d. l., 1887.
K to L street, d. l., 1888.
E street (basin), d. l., 1889.
G to H street, d. l., 1889.
Myrtle street (basin), d. l., 1890.
E street (basin), d. l., 1891.
M to N street, d. l., 1891.
New York avenue to Hanover place, d. l., 1891.
Pierce to L street, d. l., 1892.
G street, d. l., 1893, Repl.
P to Q street, d. l., 1893.
M to N street, d. l., 1893.
Defrees to I street, d. l., 1896.
P street to Florida avenue, d. l., 1896.
Pierce to M street, d. l., 1897.
Patterson to N street, d. l., 1897.

North Carolina avenue.

Sixth to Seventh street, No. 954 (Commrs.).
First street to New Jersey avenue, No. 1287 (Commrs.).
B to Fourteenth sreet, No. 2225 (Commrs.).
Fifth to Sixth street E., north side, d. l., 1882.
Tenth to Eleventh st E., north side, d. l., 1885.
Sixth to Seventh street E., d. l., 1885.
Seventh to Eighth street E., d. l., 1886.
Ninth to Tenth street E., d. l., 1886.
Sixth to Seventh street E. (basin), d. l., 1889.
Ninth to Tenth street E., d. l., 1890.
Ninth to Tenth street E., d. l., 1892.
Eighth to Ninth street E., d. l., 1893.
First to Second street E., d. l., 1894.
First to Second street E., d. l., 1895.
Thirteenth to Fourteenth street E., d. l., 1897.

Oak street.

Harewood avenue to Second street, d. l., 1895.
Harewood avenue to Second street, d. l., 1894.

Ohio avenue.

Twelfth to Thirteenth st., No. 1723 (Commrs.).
Fourteenth to Fifteenth street, north side, d. l., 1876.
Fourteenth to Fifteenth street, d. l., 1886.
Fourteenth to Fifteenth street, d. l., 1887.

Olive street.

Twenty-ninth street to Rock Creek, No. 1796 (Commrs.).
Twenty-eighth to Twenty-ninth st., d. l., 1880.

Omaha street.

Eighth street to New Hampshire avenue, D. C. inspection, 1893.
Fifth to Seventh street, d. l., 1896.
Fifth to Seventh street, d. l., 1897.
Fifth to Illinois street, d. l., 1897.

Ontario avenue.

Superior to Erie street, No. 1917 (Commrs.).

Oregon avenue.

Seventeenth to Eighteenth street, d. l., 1890.
Seventeenth to Eighteenth street, d. l., 1893.
New Hampshire avenue to Eighteenth street, d. l., 1895.

Park street.

Fourteenth to Sixteenth st., No. 832 (Commrs.).
Piney Branch road, siphon, No. 1913 (Commrs.).
Seventeenth street to Piney Branch road, d. l., 1894.

Patterson street.

First to Second street E., No. 2008 (Commrs.).
North Capitol to First street E., d. l., 1888.
North Capitol to First street E., d. l., 1891.
North Capitol to First street E., d. l., 1893.

Pennsylvania avenue.

Four-and-a-half to Sixth st., July 2, 1817 (C. W.).
Second to Four-and-a-half street, Nov. 20, 1829 (C. W.).
Seventeenth to Eighteenth street, May 16, 1867 (C. W.).
Nineteenth to Twentieth street, May 16, 1867 (C. W.).
Seventeenth street to Jackson place, May 9, 1868 (C. W.).
Fourteenth to Fifteenth street, May 24, 1869 (referred to in act of April 18, 1870, as having been constructed in north side). (C. W.).
First to Eighth street E., No. 71 (B. P. W.).
Fourth to Sixth street E. (both sides, reservation), No. 248 (B. P. W.).
Seventh to Eighth street E., No. 297½ (B. P. W.).
Tenth to Twelfth street E., No. 391 (B. P. W.).
Ninth to Tenth street W., repairs, No. 137 (Commrs.).
Eighth to Ninth street E., No. 589 (Commrs.).
Sixth to Seventh street E., No. 730 (Commrs.).
Twelfth to Thirteenth st. E., No. 954 (Commrs.).
Tenth street E. (basin), No. 957 (Commrs.).
Eleventh street E. (basin), No. 957 (Commrs.).
Twelfth street E. (basins), No. 1171 (Commrs.).
Thirteenth st. E. (basin), No. 1171 (Commrs.).
Twenty-second street to Washington circle, No. 1270 (Commrs.).
Seventeenth to Eighteenth street W., No. 1270 (Commrs.).
Sixth to Seventh street W., No. 1897 (Commrs.).
Fifteenth street to reservation No. 55 E., No. 2183 (Commrs.).
Fourteenth street to Georgia avenue E., No. 2184 (Commrs.).
Twenty-fifth to Twenty-sixth st. W., d. l., 1879.
Tenth to Eleventh st. W., south side, d. l., 1879.
Fifteenth to Sixteenth street W., d. l., 1883.
Twelfth to Thirteenth street E., d. l., 1886.
Nineteenth to Twentieth street W., d. l., 1887.
Twelfth to Thirteenth street E., d. l., 1889.
Tenth to Eleventh street W., d. l., 1889.
G street E., d. l., 1889.
Twelfth street E., d. l., 1889.
Thirteenth street E., d. l., 1889.
Third to Four-and-a-half street W., d. l., 1890.
Ninth to Tenth street W., d. l., 1890.
Third to Four-and-a-half st. W., d. l., 1890, Repl.
Twenty-fifth to Twenty-sixth st. W., d. l., 1890.
Seventeenth to Eighteenth street W., north side, d. l., 1891.
Third to Fourth street E., d. l., 1891, Repl.
Eleventh to Twelfth street W.,[1] d. l., 1892, Repl.
Thirteenth street E., d. l., 1892.
Fourth street E. (basin), d. l., 1893.
Eighth street E. (basin), d. l., 1893.
South Carolina avenue (basin), d. l., 1893.
Tenth to Eleventh street W., d. l., 1893.
First to Second street W., d. l., 1893.
Fifteenth street to Kentucky avenue, d. l., 1894.
Twenty-eighth to Twenty-ninth street W., d. l., 1894.
Sixth to Seventh street E. (siphon), d. l., 1894.
Tenth to Eleventh street E., d. l., 1894.
Sixth to Seventh street W., d. l., 1895.
Ninth to Tenth street W., d. l., 1895.
Fifteenth st. to Kentucky ave. E., d. l., 1895.
Kentucky avenue (basins), d. l., 1895.
Fifteenth street E. (basin), d. l., 1895.
Thirteenth to G street E., d. l., 1897.
Sixth to Seventh street W., d. l., 1897.
Washington circle, d. l., 1897, Repl.

Phelps place.

S street to Bancroft place, d. l., 1896.
Bancroft place to California avenue, d. l., 1897.

Philadelphia street.

Fifth to Illinois street, d. l., 1896.

Pierce place.

Fourteenth to Fifteenth street, both sid
465 (B. P. W.).
Fourteenth to Fifteenth street, d. l., 1889

Pierce street.

First street to New Jersey avenue W.,
(Commrs.).
North Capitol to First street W., d. l., 18
North Capitol to First street W., d. l., 18
North Capitol to First street W., d. l., 18
First street to New Jersey avenue W., d.

Pierce street, Anacostia.

Washington to Jackson street, d. l., 1895.
High street, junction with (basin), d. l.,

Piney Branch road.

Howard to Laurel avenue, No. 1267 (Com
Park street to Laurel ave., No. 1270 (Com
Howard avenue, north of (basin), d. l., 1

Piney Branch sewer.

Rock Creek to Fourteenth street road, N
(Commrs.).
Fourteenth street road, west of, N
(Commrs.).

Pleasant street.

Fillmore to Valley street, d. l., 1895.

Polk street, Anacostia.

High to Jefferson street, d. l., 1888.
Valley to Jefferson street, d. l., 1889.

Pomeroy street.

Linden to Larch street, d. l., 1894.
Third to Four-and-a-half st., No. 1468 (Com

Poplar street.

Twenty-seventh to Twenty-eighth stre
954 (Commrs.).
Twenty-seventh to Twenty-eighth st., d.

Portner place.

U to V street, d. l., 1888.

Potomac street.

M to Prospect street, No. 778 (B. P. W.).
M street to Chesapeake and Ohio Can
1468 (Commrs.).
Prospect street, siphon, No. 1913 (Comm
Water street to Old Fish Market, N
(Commrs.).
M st. to Chesapeake and Ohio Canal, d. l.
M to N street, d. l., 1892, Repl.
Prospect to N street, d. l., 1893.
Prospect to N street, d. l., 1894.
M to Prospect street, d. l., 1894, Repl.
Water street to Chesapeake and Ohio
d. l., 1896.
N to O street, d. l., 1897.

[1] Original sewer constructed under contract with C. W.

Princeton street.

nth street to Sherman avenue, No. 2323 nrs.).
nth to Fourteenth street, d. l., 1893.
nth to Fourteenth street, d. l., 1894.
nth street, crossing, d. l., 1897.
nth st., NW. corner (basin), d. l., 1897.

Prospect street.

econd to Potomac st., No. 634 (B. P. W.).
ifth to Thirty-sixth street W., No. 826 nrs.).
c to Thirty-fourth street, No. 826 nrs.).
ixth to Thirty-seventh street, No. 1723 nrs.).
c to Thirty-second street, d. l., 1887.
ixth to Thirty-seventh st., d. l., 1889.
eventh to Thirty-eighth st., d. l., 1895.

Providence street.

o Twelfth street E., d. l., 1897.
o Tenth street, d. l., 1897.

Quander street.

r.ey avenue to First street, d. l., 1894.

Quincy street.

avenue to First street E. (basins), No. Commrs.).
avenue to Eckington place, No. 1566 mrs.).
h to Eighth st. W., No. 2387 (Commrs.).
avenue to Eckington place, d. l., 1892.
Capitol st. to Florida ave., d. l., 1896.
ave., northeast corner (basin), d. l., 1897.

Randolph street.

o Fourth street E., d. l., 1895.

Rhode Island avenue.

enth to Eighteenth st., No. 272 (B. P. W.).
eenth street to Connecticut avenue, No. l. P. W.).
o Tenth street, No. 770 (B. P. W.).
h street to New Jersey avenue, No. 788 W.).
o Twelfth street, No. 872 (B. P. W.).
t. to Florida avenue, No. 941 (B. P. W.).
t. to New Jersey ave., No. 1038 (B. P. W.).
enth st., crossing, No. 589 (Commrs.).
ith to Seventeenth street, No. 589 mrs.).
enth to Sixteenth street, No. 591 mrs.).
o Sixth street, No. 730 (Commrs.).
to Seventh street, replacing, No. 826 mrs.).
street (basin), No. 1171 (Commrs.).
h to Eighth st. W., No. 1225 (Commrs.).
h street (basin), No. 1256 (Commrs.).
enth to Fourteenth street W., No. 1270 mrs.).
to Columbia street, No. 1287 (Commrs.).
o Ninth street E., No. 2217 (Commrs.).
ersey to Florida avenue, d. l., 1880.
h st. to Vermont ave., north side, d. l., 1876.
th to Twelfth street, d. l., 1886.
h to Eighth street (basin), d. l., 1888.
o Seventh street W., d. l., 1888, Repl.
th to Twelfth street, d. l., 1889.
to Seventh street, d. l., 1890.
h street, crossing, d. l., 1891.
treet to New Jersey avenue, d. l., 1892.
eeth st. to Iowa circle, d. l., 1895. Repl.
ticut avenue, east of (basin), d. l., 1895.
ersey to Florida ave., siphon, d. l., 1896.

Richardson place.

New Jersey avenue to Fourth street, d. l., 1889.

Ridge street.

Fourth to Fifth street W., No. 954 (Commrs.).

Riggs street.

Thirteenth to Fourteenth street, south side, d. l., 1881.
Thirteenth to Fourteenth street, south side, d. l., 1882.
Thirteenth to Fourteenth street, south side, d. l., 1885.
Thirteenth to Fourteenth street, south side, d. l., 1886.
Seventeenth to Eighteenth street, d. l., 1894.

Roanoke street.

Thirteenth to Fourteenth street, d. l., 1891.
Thirteenth to Fourteenth street, d. l., 1895.
Thirteenth to Fourteenth street, d. l., 1897.
Thirteenth st. to Sherman avenue, d. l., 1897.

Rock Creek and B street intercepting sewer.

P street to Lyon's Mill, No. 1197 (Commrs.).
Massachusetts avenue to Woodley Bridge, No. 1382 (Commrs.).
Massachusetts avenue to P street, No. 1476 (Commrs.).
Woodley road to Piney Branch, No. 2058 (Commrs.).
Twenty-fifth and Water to P Street Bridge;
Twenty-seventh street from M to O street, No. 2220 (Commrs.).

Rock Creek Church road.

Spring road to New Hampshire avenue (sewer and basin), d. l., 1894.
New Hampshire avenue to Eigth st., d. l., 1894.
Eighth street extended (basin), d. l., 1895.
Brightwood avenue to Spring road, No. 1868 (Commrs.).

Rock street.

M to Olive street, d. l., 1885.

Rosedale street.

Fifteenth to Sixteenth st., No. 1715 (Commrs.).
Fifteenth to Sixteenth st., No. 1723 (Commrs.).
Sixteenth to Seventeenth st., d. l., 1893.

Sampson street.

Sixteenth to Seventeenth street, No. 1034 (B. P. W. & C.).
Fifteenth to Sixteenth street, No. 1094 (B. P. W. & C.).
Seventeenth to Eighteenth st., center, d. l., 1877.

School street SW.

Four-and-a-half to Sixth st., No. 884 (B. P. W.).

School street NW.

Grant to Park street, d. l., 1897.
Park street, from southward, d. l., 1895.

Scott avenue.

Brightwood avenue to Sixth street, d. l., 1896.
Brightwood avenue to Warder street (basin), d. l., 1897.

Pennsylvania avenue.

Four-and-a-half to Sixth st., July 2, 1817 (C. W.).
Second to Four-and-a-half street, Nov. 20, 1829 (C. W.).
Seventeenth to Eighteenth street, May 16, 1867 (C. W.).
Nineteenth to Twentieth street, May 16, 1867 (C. W.).
Seventeenth street to Jackson place, May 9, 1868 (C. W.).
Fourteenth to Fifteenth street, May 24, 1869 (referred to in act of April 18, 1870, as having been constructed in north side), (C. W.).
First to Eighth street E., No. 71 (B. P. W.).
Fourth to Sixth street E. (both sides, reservation), No. 248 (B. P. W.).
Seventh to Eighth street E., No. 297½ (B. P. W.).
Tenth to Twelfth street E., No. 391 (B. P. W.).
Ninth to Tenth street W., repairs, No. 137 (Commrs.).
Eighth to Ninth street E., No. 589 (Commrs.).
Sixth to Seventh street E., No. 730 (Commrs.).
Twelfth to Thirteenth st. E., No. 954 (Commrs.).
Tenth street E. (basin), No. 957 (Commrs.).
Eleventh street E. (basin), No. 957 (Commrs.).
Twelfth street E. (basins), No. 1171 (Commrs.).
Thirteenth st. E. (basin), No. 1171 (Commrs.).
Twenty-second street to Washington circle, No. 1270 (Commrs.).
Seventeenth to Eighteenth street W., No. 1270 (Commrs.).
Sixth to Seventh street W., No. 1897 (Commrs.).
Fifteenth street to reservation No. 55 E., No. 2183 (Commrs.).
Fourteenth street to Georgia avenue E., No. 2184 (Commrs.).
Twenty-fifth to Twenty-sixth st. W., d. l., 1879.
Tenth to Eleventh st. W., south side, d. l., 1879.
Fifteenth to Sixteenth street W., d. l., 1883.
Twelfth to Thirteenth street E., d. l., 1886.
Nineteenth to Twentieth street W., d. l., 1887.
Twelfth to Thirteenth street E., d. l., 1889.
Tenth to Eleventh street W., d. l., 1889.
G street E., d. l., 1889.
Twelfth street E., d. l., 1889.
Thirteenth street E., d. l., 1889.
Third to Four-and-a-half street W., d. l., 1890.
Ninth to Tenth street W., d. l., 1890.
Third to Four-and-a-half st. W., d. l., 1890, Repl.
Twenty-fifth to Twenty-sixth st. W., d. l., 1890.
Seventeenth to Eighteenth street W., north side, d. l., 1891.
Third to Fourth street E., d. l., 1891, Repl.
Eleventh to Twelfth street W.,[1] d. l., 1892, Repl.
Thirteenth street E., d. l., 1892.
Fourth street E. (basin), d. l., 1893.
Eighth street E. (basin), d. l., 1893.
South Carolina avenue (basin), d. l., 1893.
Tenth to Eleventh street W., d. l., 1893.
First to Second street W., d. l., 1893.
Fifteenth street to Kentucky avenue, d. l., 1894.
Twenty-eighth to Twenty-ninth street W., d. l., 1894.
Sixth to Seventh street E. (siphon), d. l., 1894.
Tenth to Eleventh street E., d. l., 1894.
Sixth to Seventh street W., d. l., 1895.
Ninth to Tenth street W., d. l., 1895.
Fifteenth st. to Kentucky ave. E., d. l., 1895.
Kentucky avenue (basins), d. l., 1895.
Fifteenth street E. (basin), d. l., 1895.
Thirteenth to G street E., d. l., 1897.
Sixth to Seventh street W., d. l., 1897.
Washington circle, d. l., 1897, Repl.

Phelps place.

S street to Bancroft place, d. l., 1896.
Bancroft place to California avenue, d. l., 1897.

Philadelphia street.

Fifth to Illinois street, d. l., 1896.

Pierce place.

Fourteenth to Fifteenth street, both sides, No. 465 (B. P. W.).
Fourteenth to Fifteenth street, d. l., 1889.

Pierce street.

First street to New Jersey avenue W., No. 730 (Commrs.).
North Capitol to First street W., d. l., 1885.
North Capitol to First street W., d. l., 1889.
North Capitol to First street W., d. l., 1891.
First street to New Jersey avenue W., d. l., 1892.

Pierce street, Anacostia.

Washington to Jackson street, d. l., 1895.
High street, junction with (basin), d. l., 1897.

Piney Branch road.

Howard to Laurel avenue, No. 1267 (Commrs.).
Park street to Laurel ave., No. 1270 (Commrs.).
Howard avenue, north of (basin), d. l., 1894.

Piney Branch sewer.

Rock Creek to Fourteenth street road, No. 1724 (Commrs.).
Fourteenth street road, west of, No. 1805 (Commrs.).

Pleasant street.

Fillmore to Valley street, d. l., 1895.

Polk street, Anacostia.

High to Jefferson street, d. l., 1888.
Valley to Jefferson street, d. l., 1889.

Pomeroy street.

Linden to Larch street, d. l., 1894.
Third to Four-and-a-half st., No. 1468 (Commrs.).

Poplar street.

Twenty-seventh to Twenty-eighth street, No. 954 (Commrs.).
Twenty-seventh to Twenty-eighth st., d. l., 1893.

Portner place.

U to V street, d. l., 1888.

Potomac street.

M to Prospect street, No. 778 (B. P. W.).
M street to Chesapeake and Ohio Canal, No. 1468 (Commrs.).
Prospect street, siphon, No. 1913 (Commrs.).
Water street to Old Fish Market, No. 2182 (Commrs.).
M st. to Chesapeake and Ohio Canal, d. l., 1890.
M to N street, d. l., 1892, Repl.
Prospect to N street, d. l., 1893.
Prospect to N street, d. l., 1894.
M to Prospect street, d. l., 1894, Repl.
Water street to Chesapeake and Ohio Canal, d. l., 1896.
N to O street, d. l., 1897.

[1] Original sewer constructed under contract with C. W.

Princeton street.

Thirteenth street to Sherman avenue, No. 2322 (Commrs.).
Thirteenth to Fourteenth street, d. l., 1893.
Thirteenth to Fourteenth street, d. l., 1894.
Fourteenth street, crossing, d. l., 1897.
Thirteenth st., NW. corner (basin), d. l., 1897.

Prospect street.

Thirty-second to Potomac st., No. 634 (B. P. W.).
Thirty-fifth to Thirty-sixth street W., No. 826 (Commrs.).
Potomac to Thirty-fourth street, No. 826 (Commrs.).
Thirty-sixth to Thirty-seventh street, No. 1723 (Commrs.).
Potomac to Thirty-second street, d. l., 1887.
Thirty-sixth to Thirty-seventh st., d. l., 1889.
Thirty-seventh to Thirty-eighth st., d. l., 1895.

Providence street.

Tenth to Twelfth street E., d. l., 1897.
Ninth to Tenth street, d. l., 1897.

Quander street.

New Jersey avenue to First street, d. l., 1894.

Quincy street.

Lincoln avenue to First street E. (basins), No. 1473 (Commrs.).
Lincoln avenue to Eckington place, No. 1566 (Commrs.).
Seventh to Eighth st. W., No. 2387 (Commrs.).
Lincoln avenue to Eckington place, d. l., 1892.
North Capitol st. to Florida ave., d. l., 1896.
Florida ave., northeast corner (basin), d. l., 1897.

Randolph street.

Third to Fourth street E., d. l., 1895.

Rhode Island avenue.

Fourteenth to Eighteenth st., No. 272 (B. P. W.).
Seventeenth street to Connecticut avenue, No. 696 (B. P. W.).
Ninth to Tenth street, No. 770 (B. P. W.).
Seventh street to New Jersey avenue, No. 788 (B. P. W.).
Ninth to Twelfth street, No. 872 (B. P. W.).
Sixth st. to Florida avenue, No. 941 (B. P. W.).
Sixth st. to New Jersey ave., No. 1038 (B. P. W.).
Fourteenth st., crossing, No. 589 (Commrs.).
Sixteenth to Seventeenth street, No. 589 (Commrs.).
Fourteenth to Sixteenth street, No. 591 (Commrs.).
Fifth to Sixth street, No. 730 (Commrs.).
Sixth to Seventh street, replacing, No. 826 (Commrs.).
Marion street (basin), No. 1171 (Commrs.).
Seventh to Eighth st. W., No. 1225 (Commrs.).
Seventh street (basin), No. 1256 (Commrs.).
Thirteenth to Fourteenth street W., No. 1270 (Commrs.).
Eighth to Columbia street, No. 1287 (Commrs.).
Fifth to Ninth street E., No. 2217 (Commrs.).
New Jersey to Florida avenue, d. l., 1880.
Twelfth st. to Vermont ave., north side, d. l., 1876.
Eleventh to Twelfth street, d. l., 1886.
Seventh to Eighth street (basin), d. l., 1888.
Sixth to Seventh street W., d. l., 1888, Repl.
Eleventh to Twelfth street, d. l., 1889.
Marion to Seventh street, d. l., 1890.
Twelfth street, crossing, d. l., 1891.
Fifth street to New Jersey avenue, d. l., 1892.
Fourteeeth st. to Iowa circle, d. l., 1895, Repl.
Connecticut avenue, east of (basin), d. l., 1895.
New Jersey to Florida ave., siphon, d. l., 1896.

Richardson place.

New Jersey avenue to Fourth street, d. l., 1889.

Ridge street.

Fourth to Fifth street W., No. 954 (Commrs.).

Riggs street.

Thirteenth to Fourteenth street, south side, d. l., 1881.
Thirteenth to Fourteenth street, south side, d. l., 1882.
Thirteenth to Fourteenth street, south side, d. l., 1885.
Thirteenth to Fourteenth street, south side, d. l., 1886.
Seventeenth to Eighteenth street, d. l., 1894.

Roanoke street.

Thirteenth to Fourteenth street, d. l., 1891.
Thirteenth to Fourteenth street, d. l., 1895.
Thirteenth to Fourteenth street, d. l., 1897.
Thirteenth st. to Sherman avenue, d. l., 1897.

Rock Creek and B street intercepting sewer.

P street to Lyon's Mill, No. 1197 (Commrs.).
Massachusetts avenue to Woodley Bridge, No. 1382 (Commrs.).
Massachusetts avenue to P street, No. 1476 (Commrs.).
Woodley road to Piney Branch, No. 2050 (Commrs.).
Twenty-fifth and Water to P Street Bridge;
Twenty-seventh street from M to O street, No. 2220 (Commrs.).

Rock Creek Church road.

Spring road to New Hampshire avenue (sewer and basin), d. l., 1894.
New Hampshire avenue to Eigth st., d. l., 1894.
Eighth street extended (basin), d. l., 1895.
Brightwood avenue to Spring road, No. 1868 (Commrs.).

Rock street.

M to Olive street, d. l., 1885.

Rosedale street.

Fifteenth to Sixteenth st., No. 1715 (Commrs.).
Fifteenth to Sixteenth st., No. 1723 (Commrs.).
Sixteenth to Seventeenth st., d. l., 1893.

Sampson street.

Sixteenth to Seventeenth street, No. 1034 (B. P. W. & C.).
Fifteenth to Sixteenth street, No. 1094 (B. P. W. & C.).
Seventeenth to Eighteenth st., center, d. l., 1877.

School street SW.

Four-and-a-half to Sixth st., No. 884 (B. P. W.).

School street NW.

Grant to Park street, d. l., 1897.
Park street, from southward, d. l., 1895.

Scott avenue.

Brightwood avenue to Sixth street, d. l., 1896.
Brightwood avenue to Warder street (basin), d. l., 1897.

Seaton street.

North Capitol to First street W., d. l., 1896.

Scott circle.

Massachusetts avenue to Sixteenth street, No. 591 (Commrs.).
N st. to Rhode Island ave., d. l., 1892, Repl.

Shannon place, Anacostia.

Nichols avenue to railroad, No. 1202 (Commrs.).

Sheridan avenue.

Sherman avenue to Seventh street, No. 2008 (Commrs.).
Brightwood avenue, crossing, d. l., 1895.
Brightwood avenue, from eastward, d. l., 1896.
Brightwood avenue, southwest and southeast corners (basins), d. l., 1896.

Sheridan circle.

Massachusetts avenue to Twenty-third street, d. l., 1897.

Sherman avenue.

Irving to Bismark street, No. 832 (Commrs.).
Irving to Harvard street, No. 952 (Commrs.).
Harvard to Steuben street, No. 1473 (Commrs.).
Marshall to Steuben street, No. 1476 (Commrs.).
Grant ave. to Irving st., No. 1715 (Commrs.).
Marshall to Farragut st., No. 1924 (Commrs.).
Whitney avenue to Farragut street, No. 2008 (Commrs.).
Wallach street (basin), SW. and SE. corners, d. l., 1896.
Marshall street, SE. and NE. corners (basins), d. l., 1896.
Sheridan street, SE. and NE. corners (basins), d. l., 1896.
Grant street, NW. corner (basin), d. l., 1896.
Garfield Hospital, leading from, d. l., 1896.
Harvard street, NE. and NW corners (basins), d. l., 1897.
Princeton street, NW. and NE. corners (basins), d. l., 1897.
Bismark street, NE. and NW. corners, d. l., 1897.
Irving street, NW. corner (basin), d. l., 1897.
Whitney avenue, SE. corner (basin), d. l., 1897.

Slash Run sewer.

Twenty-second and M streets to Rock Creek, No. 299 (B. P. W.).
Twentieth and L streets, No. 648 (B. P. W.).
N street to New Hampshire avenue, No. 2233 (Commrs.).

South Capitol street.

B street to canal, November 15, 1870 (C. W.), not constructed.
D street to canal, No. 65 (B. P. W.).
B to D street, No. 88 (B. P. W.).
G to K street, No. 853 (B. P. W. & C.).
E to G street, No. 1012 (B. P. W.).
C to D street, d. l., 1889.
E street to Virginia avenue, d. l., 1889.
D street, d. l., 1893.
Ivy street (basins), d. l., 1893.
N to O street, d. l., 1893.
N to O street, d. l., 1894.
C to D street, d. l., 1895.
E street, NE. corner (basin), d. l., 1895.

South street.

Thirty-first to Thirty-second street, d. l., 1897.

South Carolina avenue.

Third to Fourth street, No. 838 (B. P. W.).
Third street E., crossing, No. 843 (B. P. W.).
Third to Fifth street, No. 651 (Commrs.).
Sixth to Seventh street, No. 681 (Commrs.).
Tenth to Eleventh street, No. 1468 (Commrs.).
Eleventh to Twelfth street, d. l., 1886.
Eleventh to Twelfth street, d. l., 1887.
Twelfth to Thirteenth street, d. l., 1888.
Eleventh to Twelfth street, d. l., 1889.
Twelfth to Thirteenth street, d. l., 1890.
Eleventh to Twelfth street, d. l., 1892.
Fourteenth to Fifteenth street, d. l., 1895.
Thirteenth street to Kentucky ave., d. l., 1896.
Ninth to Tenth street, d. l., 1896.
C street S. (basin), d. l., 1897.

Spring road.

Holmead avenue to Fourteenth street, No. 1473 (Commrs.).
Brightwood avenue to Fourteenth street, No. 1868 (Commrs.).
Thirteenth to Fourteenth street, d. l., 1894.
Rock Creek Church road (basins), d. l., 1894.
Thirteenth street extended (basin), d. l., 1895.

Spruce street.

Linden street (basin), No. 1256 (Commrs.).
Larch street (basin), No. 1473 (Commrs.).
Linden street to Harewood avenue, d. l., 1891.
Third to Fourth street, d. l., 1891.
Bohrer street, d. l., 1896.
Bohrer to Larch street, d. l., 1897.

Stanton place.

Fifth to Sixth street, d. l., 1889.
Fifth to Sixth street, d. l., 1893.

Steuben street.

Seventh street to Sherman avenue, No. 1797 (Commrs.).
Sherman to New Jersey avenue, d. l., 1896.

Stoughton street.

Fourteenth to Fifteenth street, d. l., 1885.
Fourteenth to Fifteenth street, d. l., 1887.
Fourteenth to Fifteenth street, d. l., 1888.
Fourteenth to Fifteenth street, d. l., 1889.

Sunderland place.

Nineteenth to Twentieth st., center, d. l., 1883.
Nineteenth to Twentieth street, d. l., 1885.

Superior street.

Champlain to Meridian ave., No. 1171 (Commrs.).
Central avenue (basin), d. l., 1895.
Ontario avenue (basin), d. l., 1895.

Tennallytown road.

Industrial Home School, near (basins), d. l., 1893.

Tennessee avenue.

D to F street N., No. 820 (Commrs.).
E to F street, No. 824 (Commrs.).
A to B street, No. 954 (Commrs.).
D to E street (basin), No. 957 (Commrs.).
B to D street, No. 972 (Commrs.).
E street (basin), No. 1256 (Commrs.).
F street (basin), No. 1256 (Commrs.).
Fourteenth street (basin), No. 1256 (Commrs.).
B street (crossing), No. 1462 (Commrs.).

A street N. (basin), No. 1473 (Commrs.).
E to F street (basin), d. l., 1890.
C street (basin), d. l., 1895.

Tiber sewer.

Pennsylvania avenue, build brick arch bridge over, at, Aug. 13, 1817. (Repealed Oct. 9, 1817.).
Pennsylvania avenue and Second street, repair bridge, November 25, 1840.
D street N., rebuild bridge, July 5, 1850.
Pennsylvania avenue to C street, Congress urged to continue arching from, to, November 27, 1855.
Jackson alley, rebuild bridge, October 6, 1866.
Pennsylvania avenue to B street N., Congress urged to arch, December 15, 1866.
H street N., stone and brick arch, December 22, 1866.
North Capitol street, at, December 12, 1868. (Not built.)
Second and F streets NE., extend culvert, January 21, 1869.
K st. N., construct bridge, December 28, 1869.
Appropriations by Congress:
Repair north end across Pennsylvania avenue, June 30, 1834.
Rebuild bridge crossing Pennsylvania avenue, August 26, 1842.
Indiana avenue, construct culvert, August 12, 1848.
Indiana avenue, complete culvert, August 18, 1856.
Botanic Garden, change creek through, into a sewer, July 2, 1864.
Botanic Garden, complete sewer through, July 28, 1866; March 2, 1867; and July 20, 1868.

NOTE.—Tiber sewer through Botanic Garden constructed during the years 1864 and 1869. Commenced by Commissioner B. B. French in 1864 and completed by Gen. N. Michler, U. S. A., 1867 to 1869. Cost, $53,150.

Towpath Chesapeake and Ohio Canal.

Thirty-first street to Rock Creek, No. 1797 (Commrs.).
Thirty-first street, crossing, d. l., 1894.
Twenty-eighth to Thirty-first street, basin connection, d. l., 1894.

Trinidad avenue.

Florida ave. to M st., No. 1716 (Commrs.).
M street N., d. l., 1894.
Florida avenue to M street (basin), d. l., 1894.
Long Meadows subdivision addition (basin), d. l., 1894.
Levis to King street, d. l., 1897.

Trumbull street.

Sixth to Seventh street, No. 1195 (Commrs.).
Sixth to Seventh street W. (basin), d. l., 1891.

Truxtun circle.

Florida avenue to Q street, d. l., 1894.

Union street.

M to O street S., No. 954 (Commrs.).
N to O street S., d. l., 1887.

University place.

Welling to Huntington street, d. l., 1889.

Valley street.

Q to U street, No. 1468 (Commrs.).
Q to U street, No. 1473 (Commrs.).
P to Q street, d. l., 1893.
P to U street, d. l., 1895.
Pleasant street (basins), d. l., 1895.

Van street

Third to Four and-a-half street, d. l., 1896.
First street to New Jersey avenue, d. l., 1897.

Vermont avenue.

Massachusetts avenue to K street, No. 84 (B. P. W.).
R to T street, N., No. 402 (B. P. W. & C.).
M to P street, east side, No. 682 (B. P. W.).
H to I street, No. 696 (B. P. W.).
M to P street, No. 762 (B. P. W.).
Iowa circle to Q street, No. 835 (B. P. W. & C.).
Iowa circle to Q st., No. 1074 (B. P. W. & C.).
T to U street, No. 730 (Commrs.).
S to T street, No. 954 (Commrs.).
L to M street, No. 1468 (Commrs.).
Eleventh street (basins), No. 1473 (Commrs.).
Iowa Circle to Q street, d. l., 1876.
Q to R street, west side, d. l., 1877.
T to U street, east side, d. l., 1877.
Q to R street, east side, d. l., 1885.
U to V street, d. l., 1887.
U to V street, d. l., 1888.
Q to R street, d. l., 1890.
Q to R street, d. l., 1891.
N to O street, d. l., 1891.
N to O street, d. l., 1892, Repl.
O street (basin), d. l., 1894.
K to L street, d. l., 1894, Repl.
Q to R street, d. l., 1895.
Tenth street (basin), d. l., 1895.
S street (basin), d. l., 1896.
L to M streets, both sides, siphons, d. l., 1896.

Vernon place.

Eighteenth to Nineteenth street, d. l., 1890.

Virginia avenue.

Four-and-a-half to Sixth street W., No. 68 (B. P. W.).
Seventeenth to Twenty-second street W., No. 400 (B. P. W.).
Twenty-first to Twenty-second street, No. 400 (B. P. W & C.).
Nineteenth to Twentieth st., No. 744 (B. P. W.).
Ninth street W., No. 854 (B. P. W. & C.).
Eleventh street W., crossing, No. 855 (B. P. W.).
G to Twenty-fourth st. W., No. 73 (Commrs.).
Eleventh to Twelfth st. W., No. 253 (Commrs.).
Tenth to Eleventh st. W., No. 305 (Commrs.).
Sixth to Seventh street W., No. 386 (Commrs.).
Sixth to Seventh street W., No. 449 (Commrs.).
Tenth to Eleventh street W., No. 449 (Commrs.).
B and Eighteenth street W., No. 583 (Commrs.).
Eighteenth to Nineteenth street W., No. 588 (Commrs.).
Twenty-third to Twenty-fourth street, No. 590 (Commrs.).
Nineteenth to Twentieth street W., No. 591 (Commrs.).
Twentieth to Twenty-first street W., No. 589 (Commrs.).
Twenty-second to Twenty-third street W., No. 589 (Commrs.).
Third to Four-and-a-half street W., No. 589 (Commrs.).
Second street to Delaware avenue W., No. 631 (Commrs.).
Eighth to Ninth street E., No. 826 (Commrs.).
Seventh street E. (basin), No. 826 (Commrs.).
I street S. (basin), No. 826 (Commrs.).
Second to Third street W., No. 954 (Commrs.).
Third to Fourth street E., No. 1195 (Commrs.).
South Capitol street to Delaware avenue W., No. 1270 (Commrs.).
Third to Four-and-a-half street W., No. 1468 (Commrs.).
Twenty-first to Twenty-second street W., No. 2085 (Commrs.).
Eleventh to Twelfth street W., d. l., 1880.
Fourth to Sixth street E., north side, d. l., 1878.

Twenty-third to Twenty-fourth street W., north side, d. l., 1879.
Ninth to Eleventh st. W., south side, d. l., 1880.
Ninth to Tenth street W., d. l., 1883.
Sixth to Seventh street E., d. l., 1886.
Fourth to Fifth street E., d. l., 1888.
G street N., d. l., 1889.
Twenty-fourth street W., d. l., 1889.
Twenty-fifth street W., d. l., 1889.
E street N., d. l., 1889.
Second to Third street E., d. l., 1890.
Sixth to Seventh street E., d. l., 1892, Repl.
Fifth to Sixth street E., d. l., 1893.
Twenty-sixth to Twenty-seventh street W., d. l., 1894.
Four-and-a-half to Sixth st. W., d. l., 1894, Repl.
Seventh to Eighth street E., d. l., 1895.
Seventh to Eighth street E., d. l., 1896.
Twenty-eighth to I street W., d. l., 1897.

Wallace street.

Lansing street, for schoolhouse, d. l., 1896.

Wallach place.

Thirteenth to Fourteenth street, d. l., 1890.

Wallach street.

Thirteenth street to Sherman ave., d. l., 1896.

Walter place.

Twelfth to Thirteenth street, d. l., 1893.

Ward place.

New Hampshire ave. to Twenty-second street, d. l., 1889.
New Hampshire ave. to Twenty-second street, d. l., 1894.
New Hampshire ave. to Twenty-second street, d. l., 1897.

Warner street.

Fifth st. to New Jersey ave., No. 598 (Commrs.).

Warren street.

B to C street, d. l., 1891.
B to C street, d. l., 1896.

Washington street.

Fourth to Fifth st. (basins), No. 1171 (Commrs.).
Fourth to Fifth street, south side, d. l., 1884.
Fourth to Fifth street, d. l., 1885.
Fourth to Fifth street, north side, d. l., 1882.
Fourth to Fifth street, d. l., 1889.

Washington street, Anacostia.

Monroe to Fillmore street, d. l., 1894.
Adams to Taylor street, d. l., 1896.
Adams to Pierce street, d. l., 1897.
Fillmore to Pierce street, d. l., 1897.

Washington circle.

K street to New Hampshire avenue, No. 1195 (Commrs.).
Twenty-second to Twenty-third street, south side, d. l., 1883.
Twenty-third street to Pennsylvania avenue, d. l., 1897, Repl.

Water street.

O street S., crossing, No. 365 (B. P. W.).
Thirteen-and-a-half to Fourteenth street, No. 728 (Commrs.).
Fourteenth street, crossing, No. 826 (Commrs.).
Fourteenth street, crossing, No. 833 (Commrs.).
Fourteenth to D street, No. 833 (Commrs.).
K street S., crossing No. 1237 (Commrs.).
Twenty-second to Twenty-third street, No. 2182 (Commrs.).
Tenth to H street W., d. l., 1897.
Tenth to Eleventh street W., d. l., 1897.

Welling street.

Fourteenth st. to University place, d. l., 1889.

Westminster street.

Ninth to Tenth street, d. l., 1893.

Whitney avenue.

Sherman avenue to Seventh street, No. 2008 (Commrs.).
Fourteenth street to Holmead avenue, No. 2368 (Commrs.).
Seventh st. W., from, eastward, d. l., 1895.
Holmead ave. to Thirteenth st., d. l., 1896.
Thirteenth to Fourteenth street W., d. l., 1896.
Seventh street W., east of (basins), d. l., 1896.
Brightwood avenue, SW. and SE. corners (basins), d. l., 1896.
Holmead ave. to Fourteenth st. W., d. l., 1897.
Thirteenth to Fourteenth st. (basins), d. l., 1897.

Wilson street.

Linden to Harewood st., No. 1195 (Commrs.).
Fourth to Sixth street W., No. 1270 (Commrs.).
Third to Fourth street W., d. l., 1892.
Fifth street, NE. corner (basin), d. l., 1895.

Wiltberger street.

S to T street, d. l., 1890.

Woodley road.

Nineteenth street to Belmont avenue, No. 1797 (Commrs.).
Connecticut avenue to Rock Creek, No. 1799 (Commrs.).
Connecticut to Belmont avenue, No. 2394 (Commrs.).
Connecticut avenue, d. l., 1889.
Nineteenth street extended (basins), d. l., 1894.
Twentieth street (basin), d. l., 1894.

Wyoming avenue.

Connecticut avenue to Columbia road, No. 1195 (Commrs.).
Eighteenth to Nineteenth street, d. l., 1890.
Columbia road to Connecticut ave., d. l., 1896.

Yale street.

Sherman avenue to Thirteenth street, No. 2205 (Commrs.).
Thirteenth to Fourteenth street, d. l., 1895.

Zoological Park.

Intercepting sewer, near first creek, crossing, d. l., 1897.

SQUARES, RESERVATIONS, SUBDIVISIONS, AND MISCELLANEOUS CONTRACTS.

Square 4, day labor, 1886, 1888, 1889, 1890, 1894 (basins).
Square 5, day labor, 1885.
Square 14, day labor, 1892.
Square 16, day labor, 1886, 1888, 1894 (basin).
Square 17, day labor, 1888.
Square 24, day labor, 1894.
Square 28, day labor, 1884, 1885, 1886, 1889, 1890 (basin), 1890, 1891, 1894 (basin).
Square 29, day labor, 1886, 1887, 1897.
Square 37, day labor, 1888, 1892, 1893.
Square 40, day labor, 1888.
Square 41, day labor, 1880.
Square 42, day labor, 1885, 1887.
Square 43, day labor, 1879, 1891.
Square 44, day labor, 1886, 1889, 1891.
Square 49, day labor, 1884.
Square 50, day labor, 1891, 1895.
Square 51, day labor, 1890.
Square 53, day labor, 1890.
Square 54, day labor, 1886, 1887, 1889, 1890.
Square 56, day labor, 1887.
Square 59, day labor, 1885, 1886.
Square 66, day labor, 1883.
Square 67, day labor, 1883, 1886, 1887, 1888.
Square 68, day labor, 1894, 1897, Repl.
Square 69, day labor, 1882, 1896.
Square 70, day labor, 1885, 1886, 1889, 1891, 1897.
Square 73, day labor, 1885, 1891, 1893 (basin), contract No. 280 (B. P. W.).
Square 74, day labor, 1893.
Square 76, day labor, 1886, 1890, contract No. 1034 (B. P. W. & C.); No. 5 (Commrs.).
Square 77, contract No. 193 (B. P. W.), day labor, 1889 (basin), 1891, 1892, 1893 (basin).
Square 78, contract No. 752 (B. P. W.).
Square 79, day labor, 1887, 1891 (basin), 1897.
Square 81, day labor, 1893.
Square 82, day labor, 1887.
Square 83, day labor, 1894.
Square 85, day labor, 1876, 1887, 1888.
Square 86, day labor, 1893.
Square 90, day labor, 1885.
Square 91, day labor, 1890, 1891, 1895.
Square 93, day labor, 1882, 1883, 1891, 1892.
Square 96, day labor, 1878, 1882, 1891.
Square 97, day labor, 1888.
Square 100, day labor, 1888.
Square 101, day labor, 1889, 1891.
Square 103, day labor, 1896.
Square 104, contract No. 744 (B. P. W.).
Square 104, day labor, 1884, 1885, 1886, 1887, 1888, 1890 (basin).
Square 105, day labor, 1889 Repl., 1889.
Square 107, day labor, 1885, 1892.
Square 110, day labor, 1886, 1887, 1893.
Square 116, contract No. 487 (B. P. W.); day labor, 1889.
Square 117, day labor, 1875, 1881, 1888, 1889, 1890, 1891, 1893.
Square 120, day labor, 1889.
Square 121, day labor, 1886, 1888.
Square 126, day labor, 1888, 1892 (basin).
Square 127, day labor, 1879, 1888, 1890 Repl., 1894.
Square 131, day labor, 1894.
Square 132, day labor, 1888, 1890, 1892, 1893, 1896.
Square 133, day labor, 1878, 1883, 1890, 1891 (basin).
Square 135, day labor, 1892.
Square 137, day labor, 1890.
Square 139, day labor, 1879, 1880, 1881, 1889.
Square 140, contract No. 723 (B. P. W. & C.); 1797 (Commrs.).
Square 145, day labor, 1887.
Square 150, day labor, 1883, 1890, 1891.
Square 151, day labor, 1895, 1896.
Square 152, day labor, 1891, 1892, 1893, 1895.
Square 153, day labor, 1893, 1894 sewer and basin, 1895.
Square 155, day labor, 1883, 1887, 1892, 1895, contract No. 954 (Commrs.).
Square 156, day labor, 1878, 1893.
Square 157, day labor, 1887, 1888, 1889 (basin), 1890, 1895 (basin), contract No. 1020 (B. P. W.).
Square 158, day labor, 1888 basin and sewer, 1880, contract No. 1468 (Commrs.).
Square 159, day labor, 1885, 1890, 1893, 1896 (basin), contract No. 723 (B. P. W. & C.).
Square 160, day labor, 1892.
Square 161, day labor, 1887, 1889.
Square 162, day labor, 1881.
Square 166, day labor, 1890.
Square 167, day labor, 1890, 1894.
Square 169, day labor, 1880, contract No. 826 (Commrs.).
Square 170, day labor, 1891.
Square 172, day labor, 1891, 1893.
Square 175, day labor, 1892.
Square 176, day labor, 1890, 1893, 1894.
Square 177, day labor, 1890 (basin), 1891.
Square 178, day labor, 1889.
Square 180, contract No. 878 (B. P. W. & C.).
Square 181, day labor, 1887, 1888, 1894.
Square 182, day labor, 1877, 1891, contract No. 589 (Commrs.).
Square 183, day labor, 1889 (basin), contract No. 523 (B. P. W.), 589 (Commrs.).
Square 184, day labor, 1889 basin and Repl., 1890, 1892, 1893.
Square 185, day labor, 1897.

Square 190, day labor, 1879.
Square 191, day labor, 1878, 1879, 1882, 1883, 1893.
Square 192, day labor, 1890, 1892.
Square 194, contract No. 1094 (B. P. W. & C.).
Square 195, day labor, 1885, 1882.
Square 197, day labor, 1889, 1890, 1893, 1894, 1896.
Square 198, day labor, 1886, 1890, 1896; contract No. 748 (B. P. W.).
Square 199, day labor, 1889, 1895.
Square 204, day labor, 1888, 1892.
Square 205, day labor, 1891, 1892.
Square 206, day labor, 1888, 1891.
Square 207, day labor, 1889, 1896; contract Nos. 844 and 624 (B. P. W.).
Square 208, day labor, 1887.
Square 209, contract No. 1094 (B. P. W. & C.).
Square 210, day labor, 1881, 1889, 1891, 1895 (basin).
Square 211, day labor, 1891.
Square 212, day labor, 1880, 1886, 1887.
Square 214, day labor, 1887, 1889, 1890 (basin), 1895.
Square 216, day labor, 1886.
Square 218, day labor, 1888, 1895.
Square 220, day labor, 1880, 1883, 1892.
Square 221, day labor, 1883, 1896 (basin), contract No. 217 (B. P. W.).
Square 222, contract No. 162, (B. P. W.).
Square 225, contract No. 752 (B. P. W.), 752 (B. P. W. & C.).
Square 226, day labor, 1887; October 12, 1865 (C. W.).
Square 231, day labor, 1895.
Square 234, day labor, 1879, 1894; contract No. 1050 (B. P. W. & C.).
Square 235, day labor, 1885, 1890, 1893; contract No. 1050 (B. P. W. & C.), 1752 (Commrs.).
Square 237, day labor, 1885, 1887, 1892, 1894 (basin); contract No. 1098 (B. P. W. & C.).
Square 238, day labor, 1890, 1891, 1892.
Square 239, day labor, 1881, 1886; contract No. 930 (B. P. W.).
Square 240, day labor, 1889 (basin).
Square 241, day labor, 1881, 1887, 1888.
Square 242, day labor, 1877, 1893 (basin); 1895, Repl. and basin.
Square 245, day labor, 1889, 1890; contract No. 835 (B. P. W. & C.).
Square 247, day labor, 1887, 1888, 1890, 1892, 1895.
Square 248, contract No. 916 (B. P. W. & C.), 1091 (B. P. W.).
Square 250, contract No. 949 (B. P. W.); day labor, 1896, July 23, 1852 (C. W.).
Square 252, day labor, 1893, May 27, 1858.
Square 253, day labor, 1887.
Square 254, day labor, 1897; contract No. 713 (B. P. W.); August 26, 1852, May 6, 1854 (C. W.).
Square 269, day labor, 1890.
Square 271, day labor, 1886.
Square 273, day labor, 1887; contract No. 589 (Commrs.).
Square 274, day labor, 1892; contract No. 593 (Commrs.).
Square 275, day labor, 1879, 1886, 1893, 1894, 1895 (basin); contract No. 244 (Commrs.).
Square 276, day labor, 1897; contract No. 770 (B. P. W. & C.).
Square 277, day labor, 1882.
Square 278, contract No. 835 (B. P. W. & C.).
Square 279, day labor, 1891; contract No. 1087 (B. P. W.), 1087 (B. P. W. & C.).
Square 280, day labor, 1891.
Square 281, day labor, 1886.
Square 282, day labor, 1892.
Square 283, contract No. 878 (B. P. W. & C.).
Square 284, day labor, 1886, 1893.
Square 285, day labor, 1890.
Square 290, day labor, 1889 (basin).
Square 296, day labor, 1894.
Square 297, day labor, 1882; contract No. 1468 (Commrs.).
Square 302, contract No. 1050 (B. P. W. & C.).
Square 303, contract No. 1050 (B. P. W. & C.).
Square 304, contract No. 1050 (B. P. W. & C.); day labor, 1893.
Square 305, contract No. 1050 (B. P. W. & C.); day labor, 1890 (basin).
Square 307, day labor, 1883.
Square 309, day labor, 1878, 1887, 1889.
Square 310, day labor, 1892, 1893.
Square 312, day labor, 1887; contract No. 835 and 1086 (B. P. W.).
Square 313, day labor, 1888.
Square 316, day labor, 1882, 1891, 1897.
Square 319, contract No. 318 (Commrs.).
Square 322, day labor, 1888.
Square 323, day labor, 1889.
Square 326, day labor, 1889; contract No. 1066 (B. P. W.).
Square 331, day labor, 1887, 1889.
Square 332, day labor, 1883, 1889.
Square 333, contract No. 402 (B. P. W. & C.).
Square 334, contract No. 954 (Commrs.).
Square 335, contract No. 5 (Commrs.).
Square 336, day labor, 1896, Repl.[1]
Square 337, day labor, 1887, 1890, 1897; contracts Nos. 1076 and 1086 (B. P. W.).
Square 338, contract No. 5 (Commrs.).
Square 339, contracts Nos. 556 and 688 (B. P. W.) and 5 (Commrs.); day labor, 1888 (Repl.), 1891 (Repl.), 1893 (Repl.).
Square 340, day labor, 1890, 1893.
Square 341, day labor, 1892, Repl.[1]
Square 342, day labor, 1888.
Square 343, day labor, 1894.
Square 345, day labor, 1889; contract No. 318 (Commrs.), Aug. 21, 1858 (C. W.).

[1] Original sewer constructed under contract with B. P. W.

347, day labor, 1889.
351, contract No. 589 (Commrs.).
354, day labor, 1882.
355, day labor, 1889.
357, day labor, 1884, 1885, 1886.
358, day labor, 1889, 1890.
359, day labor, 1886, 1887, 1888.
360, day labor, 1884, 1885.
361, day labor, 1886, 1888, 1890 (basin and sewer), 1894 (basin).
362, day labor, 1889, 1894 (basin); contract No. 1270 (Commrs.).
363, day labor, 1876, 1877, 1892 contract No. 589 (Commrs.).
364, day labor, 1888, 1897; contract No. 738 (B. P. W.).
365, day labor, 1892, Repl.; contract No. 1003 (B. P. W.).
366, day labor, 1887, 1890 (Repl.), contract No. 1064 (B. P. W.).
367, day labor, 1887; contract No. B. P. W.).
368, day labor, 1876, 1885, 1888, contracts Nos. 1087 (B. P. W.), 1. P. W. & C.).
369, day labor, 1888, 1889 (basin), 892; contract No. 150½ (B. P. W.)
370, day labor, 1891.
371, day labor, 1889.
373, day labor, 1895.
375, day labor, 1883, 1887, 1897.
376, day labor, 1882.
377, day labor, 1886; contract 3 (B. P. W.).
378, day labor, 1879; contracts 87 (B. P. W.), 89 (Commrs.).
379, day labor, 1895; contract 7 (Commrs.).
380, contract No. 137 (Commrs.).
381, contract No. 137 (Commrs.).
382, contract No. 137 (Commrs.).
383, day labor, 1881, 1884.
385, day labor, 1879.
387, day labor, 1883, 1887, 1889; contract No. 808 (B. P. W. & C.).
388, day labor, 1889, 1891, 1897.
389, day labor, 1890.
393, day labor, 1880, 1890.
395, day labor, 1878, 1893, Repl.; contract No. 770 (B. P. W. & C.).
397, day labor, 1897; contract 35 (B. P. W.).
398, day labor, 1897; contracts 835 and 868 (B. P. W.).
399, day labor, 1887.
400, contract No. 713 (B. P. W.).
404, day labor, 1885.
409, day labor, 1886.
411, day labor, 1888.
413, day labor, 1879, 1892.
416, contract No. 835 (B. P. W.
417, day labor 1894, Repl.; contract No. 5 (Commrs.).
419, day labor, 1885; contract (Commrs.).
420, day labor, 1891 Repl.; contract No. 835 (B. P. W.).
Square 421, day labor, 1883; contracts Nos. 1034 (B. P. W. & C.), 835 (B. P. W.).
Square 422, day labor, 1894 (basin); contracts 835 and 835 Ex. (B. P. W.).
Square 424, contract No. 592 (B. P. W.).
Square 425, contract No. 592 (B. P. W.); June 12, 1867, September 20, 1870, March 8, 1871 (C. W.).
Square 426, day labor, 1879, 1891 (basin).
Square 429, day labor, 1876.
Square 431, November 19, 1863 (C. W.).
Square 432, day labor, 1887.
Square 435, day labor, 1890, 1891.
Square 436, day labor, 1889, 1890.
Square 440, day labor, 1887.
Square 441, day labor, 1886; contract No. 835 (B. P. W. & C.).
Square 442, day labor, 1890, 1893; contract No. 835 (B. P. W. & C.).
Square 444, day labor, 1876, 1887, 1890; contract No. 835 (B. P. W.).
Square 445, day labor, 1881, 1888 (basin), 1891 (basin and sewer), 1894; contract No. 835 (B. P. W.).
Square 446, contract No. 835 (B. P. W.).
Square 447, contract No. 760 (B. P. W. & C.).
Square 448, contract No. 466 (B. P. W.); day labor, 1888, 1892; contract No. 5 (Commrs.); January 4, 1871 (C. W).
Square 449, contract No. 592 (B. P. W.); day labor, 1887.
Square 452, day labor, 1890, 1893 (basin); September 23, 1864.
Square 453, day labor, 1878, 1887, 1893, 1894.
Square 454, day labor, 1892, Repl.; contract No. 821 (B. P. W.).
Square 455, November 4, 1865 (C. W.).
Square 456, July 21, 1858; July 28, 1866 (C. W.).
Square 457, October 26, 1865; April 27, 1866 (C. W.).
Square 461, day labor, 1889 (basin); contract no No., in 1874.
Square 462, day labor, 1896; contract No. 557 (B. P. W.).
Square 463, day labor, 1886; contract No. 557 (B. P. W.).
Square 465, day labor, 1890; contract No. 907 (B. P. W.).
Square 467, day labor, 1883; contract Nos. 539 and 1063 (B. P. W.).
Square 468, day labor, 1888, 1892, 1896.
Square 469, day labor, 1892, 1889.
Square 470, day labor, 1888, 1893 (basin).
Square 472, day labor, 1889, 1890.
Square 475, day labor, 1876, 1885, 1890 (basin), 1894 (basin).
Square 480, contract No. 1034 (B. P. W. & C.).
Square 482, day labor, 1891.
Square 484, contract No. 913 (B. P. W.).
Square 488, January 4, 1866 (C. W.).
Square 490, day labor, 1892, 1894, 1895; September 30, 1864 (C. W.).

Square 491, day labor, 1893 (basin and sewer), 1894; contract No. 1566 (Commrs.).
Square 492, contract No. 557 (B. P. W.).
Square 493, contract No. 1468 (Commrs.).
Square 496, contract No. 837 (B. P. W.).
Square 497, day labor, 1892, 1893 (basin), 1896.
Square 498, day labor, 1889 (basin), 1890, 1891.
Square 500, day labor, 1893.
Square 501, day labor, 1888.
Square 502, day labor, 1887, 1888, 1891, 1893.
Square 503, day labor, 1886, 1887, 1888, 1891, 1892, 1893.
Square 504, day labor, 1880.
Square 507, day labor, 1886, 1888.
Square 508, day labor, 1878.
Square 509, day labor, 1878, 1885; contract No. 1034 (B. P. W. & C.).
Square 510, day labor, 1876, 1884, 1885, 1888, 1896; contracts Nos. 760 (B. P. W. & C.), 30 (Commrs.).
Square 511, day labor, 1880, 1885, 1888, 1889, 1891; contract No. 582 (B. P. W.).
Square 512, day labor, 1881, 1888, 1889.
Square 513, day labor, 1887.
Square 514, May 27, 1867 (C. W.).
Square 515, May 19, 1871 (C. W.); contracts Nos. 950, 1064, and 1065 (B. P. W.); day labor, 1882, 1885, 1892, 1893, 1895.
Square 516, day labor, 1882, 1886, 1892 (basin), 1894 Repl., 1894; March 20, 1865 (C. W.); July 8, 1865 (C. W.).
Square 517, day labor, 1877, 1878, 1879, 1890, 1891; contract No. 240 (Commrs.).
Square 518, day labor, 1885, 1889, 1890, 1891, 1895; contract No. 317 (Commrs.); July 21, 1866 (C. W.).
Square 519, day labor, 1885.
Square 520, day labor, 1886, 1894, 1895, 1897.
Square 521, day labor, 1888.
Square 528, contract No. 353 (B. P. W.); May, 19, 1871 (C. W.).
Square 529, day labor, 1892, 1893.
Square 530, day labor, 1885.
Square 532. See Indiana avenue.
Square 533, July 17, 1855 (C. W.).
Square 534, day labor, 1885, 1887, 1888, 1892, 1894.
Square 535, day labor, 1890, 1893.
Square 538, day labor, 1889.
Square 539, day labor, 1892, 1893.
Square 540, day labor, 1887, 1888, 1893; contract No. 202 (B. P. W.).
Square 541, day labor, 1886, 1890.
Square 542, day labor, 1894, 1896.
Square 543, day labor, 1890.
Square 544, day labor, 1888, 1890, 1891.
Square 545, day labor, 1893.
Square 546, day labor, 1886, 1887, 1893, 1894.
Square 551, day labor, 1889, 1891, 1892.
Square 553, day labor, 1890, 1891, 1892; contracts Nos. 831 (B. P. W.), 1468 (Commrs.).
Square 554, day labor, 1889, 1890.
Square 555, day labor, 1893; contract No. 1723 (Commrs.).
Square 557, day labor, 1886, 1887, 1888, 1889, 1891, 1892, 1896, 1897.
Square 559, day labor, 1886, 1889.
Square 560, day labor, 1877.
Square 561, day labor, 1886; contract No. 881 (B. P. W.).
Square 562, May 19, 1871 (C. W.).
Square 564, day labor, 1887, 1891, 1892.
Square 565, day labor, 1877.
Square 566, day labor, 1890, 1891.
Square 567, day labor, 1886, 1890. 1891.
Square 568, day labor, 1893; contract No. 919 (B. P. W.).
Square 569, day labor, 1886, 1889, 1890.
Square 570, day labor, 1890, 1891.
Square 571, day labor, 1892.
Square 575, day labor, 1895; contract No. 384 (B. P. W.).
Square 577, day labor, 1885, 1887.
Square 579, day labor, 1890.
Square 581, day labor, 1893.
Square 582, contract No. 1468 (Commrs.).
Square 583, day labor, 1888.
Square 584, contract No. 589 (Commrs.).
Square 585, day labor, 1890, 1892.
Square 586, day labor, 1887, 1888; contract No. 702 (B. P. W. & C.).
Square 587, day labor, 1891; contract No. 1468 (Commrs.).
Square 588, day labor, 1889, 1894.
Square 589, day labor, 1890, 1894.
Square 592, day labor, 1894.
Square 595, day labor, 1892.
Square 597, day labor, 1886.
Square 615, day labor, 1889, 1893; contract No. 1716 (Commrs.).
Square 616, day labor, 1889, 1894.
Square 617, day labor, 1892, 1897; contract No. 831 (B. P. W. & C.).
Square 618, day labor, 1890, 1891.
Square 619, day labor, 1893.
Square 620, day labor, 1886, 1889, 1890, 1891, 1893, 1895; contract No. 631 (Commrs.).
Square 621, day labor, 1886, 1887, 1888, 1889, 1890, 1891.
Square 622, day labor, 1892, 1893.
Square 623, day labor, 1890 Repl.; 1896, Repl.[1]
Square 624, day labor, 1887, 1892, 1896; contracts Nos. 821 (B. P. W.), 730 (Commrs.).
Square 625, day labor, 1881; contract No. 760 (B. P. W.).
Square 626, day labor, 1880.
Square 628, day labor, 1883, 1884, 1887, 1889, 1893; contracts Nos. 803, 1054 (B. P. W.), 819 (B. P. W. & C.).
Square 630, day labor, 1890, 1891, Repl.; contracts Nos. 760, 958 (B. P. W.).

[1] Original sewer built by property owners.

Square 633, day labor, 1887, 1888, 1889, 1892, 1894.
Square 634, day labor, 1876; contract No. 589 (Commrs.).
Square 635, day labor, 1885, 1891.
Square 638, day labor, 1886, 1888.
Square 640, day labor, 1887, 1889, 1891.
Square 642, day labor, 1890.
Square 643, day labor, 1891.
Square 645, day labor, 1896.
Square 647, day labor, 1893.
Square 650, day labor, 1895.
Square 668, day labor, 1889, 1893.
Square 669, day labor, 1886, 1892, 1893, 1894.
Square 672, day labor, 1891.
Square 673, contract No. 836 (B. P. W. & C.).
Square 674, day labor, 1885, 1886, 1887, 1888, 1890, 1892.
Square 675, contracts Nos. 819 (B. P. W. & C.); 730 (Commrs.).
Square 676, contracts Nos. 819 (B. P. W. & C.), 82 (Commrs.); 1880, 1888, 1890, 1893, day labor.
Square 677, day labor, 1881, 1886, 1888, 1887, 1895 Repl.; contracts Nos. 819 (B. P. W. & C.), 51 (Commrs.); August 26, 1860 (C. W.).
Square 678, day labor, 1884.
Square 680, contract No. 570 (B. P. W.).
Square 686, day labor, 1888, 1889, 1890; contracts Nos. 243, 961, 828 (B. P. W.).
Square 690, contract No. 88 (B. P. W.).
Square 692, day labor, 1879.
Square 693, day labor, 1889, 1894; contract No. 712 (B. P. W.).
Square 697, day labor, 1888, 1889.
Square 701, day labor, 1893, 1894.
Square 702, day labor, 1889, 1890.
Square 710, contract No. 836 (B. P. W. & C.).
Square 711, contract No. 836 (B. P. W. & C.), 2008 (Commrs.).
Square 716, day labor, 1887.
Square 719, day labor, 1891, 1893, 1895.
Square 720, day labor, 1890, 1893.
Square 721, day labor, 1890, 1891, 1895.
Square 724, day labor, 1894.
Square 725, day labor, 1887, 1890, 1891.
Square 726, day labor, 1888.
Square 727, day labor, 1893, 1894; contract by verbal order, 1875.
Square 728, contract No. 1088 (B. P. W.).
Square 729, contract No. 653 (B. P. W.).
Square 731, day labor, 1887.
Square 732, day labor, 1886, 1890.
Square 733, day labor, 1886, 1887, 1896.
Square 734, day labor, 1894.
Square 735, day labor, 1893, 1896; contract No. 1715 (Commrs.).
Square 736, day labor, 1892, 1896, 1897.
Square 737, day labor, 1885, 1893.
Square 740, contract No. 1270 (Commrs.).
Square 743, day labor, 1894.
Square 744, day labor, 1890.
Square 748, day labor, 1895.
Square 749, day labor, 1889, 1891, 1893, 1895.
Square 750, day labor, 1894.
Square 751, day labor, 1879.
Square 753, day labor, 1886, 1887, 1888, 1893, 1893 Repl.
Square 754, day labor, 1892, 1895.
Square 756, day labor, 1886, 1897.
Square 759, day labor, 1889, 1890.
Square 760, day labor, 1886.
Square 761, day labor, 1881, 1885, 1892.
Square 762, day labor, 1888.
Square 763, day labor, 1893; contract No. 843 (B. P. W.).
Square 767, day labor, 1893.
Square 774, day labor, 1892, 1893, 1895, 1896.
Square 775, day labor, 1897.
Square 776, day labor, 1893, 1896.
Square 777, day labor, 1894.
Square 778, day labor, 1892, 1893; contract No. 702 (B. P. W.).
Square 779, day labor, 1890, 1891, 1893.
Square 780, day labor, 1892.
Square 784, day labor, 1877.
Square 785, day labor, 1889, 1892; contract No. 811 (B. P. W. & C.).
Square 786, contract No. 811 (B. P. W. & C.).
Square 787, day labor, 1896 (basin).
Square 788, day labor, 1886, 1890.
Square 794, day labor, 1893.
Square 797, day labor, 1876, 1892.
Square 799, day labor, 1893.
Square 801, day labor, 1889, 1892.
Square 802, day labor, 1885.
Square 805, day labor, 1887, 1889.
Square 808, contract No. 631 (Commrs.).
Square 809, day labor, 1886, 1890, 1893.
Square 810, contract No. 702 (B. P. W.).
Square 812, day labor, 1888.
Square 816, day labor, 1893.
Square 824, day labor, 1890.
Square 825, day labor, 1892, 1893.
Square 829, day labor, 1891; contracts Nos. 589, 593 (Commrs.).
Square 834, contract No. 702 (B. P. W.).
Square 835, day labor, 1890.
Square 836, day labor, 1892.
Square 838, day labor, 1884, 1887.
Square 841, day labor, 1891.
Square 844, day labor, 1892.
Square 845, day labor, 1886.
Square 855, day labor, 1894.
Square 856, day labor, 1889, 1891, 1894; contract No. 702 (B. P. W. & C.).
Square 857, day labor, 1889, 1890.
Square 858, day labor, 1887, 1890, 1891.
Square 859, day labor, 1887, 1889, 1890; contract No. 702 (B. P. W. & C.); 1896, 1897.
Square 860, day labor, 1893, 1897; contract No. 715 (Commrs.).
Square 861, day labor, 1890, 1891, 1892, 1893.
Square 863, day labor, 1892.
Square 865, day labor, 1887.
Square 866, day labor, 1883, 1886.
Square 867, day labor, 1887, 1892.
Square 868, day labor, 1888; contract No. 898 (Commrs.).

Square 869, day labor, 1888, 1889 Repl.
Square 870, day labor, 1877, 1890, 1891.
Square 873, day labor, 1886, 1888, 1889.
Square 877, day labor, 1888, 1889.
Square 878, day labor, 1887, 1891, 1892.
Square 886, day labor, 1895.
Square 887, day labor, 1895.
Square 889, contract No. 1097 (B. P. W.).
Square 890, contract No. 1892; contract No. 1034 (B. P. W. & C.).
Square 894, day labor, 1897.
Square 895, day labor, 1891, 1893.
Square 899, day labor, 1891.
Square 900, day labor, 1891, 1894; contract No. 835 (B. P. W. & C.).
Square 904, day labor, 1876; contract No. 1072 (B. P. W.).
Square 907, day labor, 1892.
Square 910, day labor, 1887.
Square 912, day labor, 1893, 1895.
Square 913, day labor, 1882, 1883, 1889; contract No. 954 (Commrs.).
Square 915, day labor, 1880, 1888, 1890, 1892.
Square 917, day labor, 1889, 1890, 1892.
Square 919, day labor, 1881, 1882.
Square 922, day labor, 1886.
Square 925, day labor, 1888, 1892.
Square 926, day labor, 1886.
Square 933, day labor, 1876; contract No. 6 (Commrs.).
Square 934, day labor, 1876, 1893.
Square 936, day labor, 1891, 1892.
Square 942, day labor. 1884, 1896,
Square 943, day labor, 1887, 1891, 1892, 1893.
Square 944, day labor, 1877.
Square 950, day labor, 1890, 1891, 1892, 1896.
Square 958, day labor, 1884.
Square 960, day labor, 1890, 1893.
Square 963, day labor, 1891.
Square 969, day labor, 1885.
Square 970, day labor. 1889.
Square 980, day labor, 1893.
Square 981, day labor, 1891; contract No. 1270 (Commrs.).
Square 983, day labor, 1892.
Square 987, day labor, 1878; contract No. 589 (Commrs.).
Square 988, day labor, 1893, 1894.
Square 990, day labor, 1890, 1893.
Square 991, day labor, 1890.
Square 992, day labor, 1886, 1891.
Square 995, day labor, 1897.
Square 996, day labor, 1886, 1891; contract No. 1270 (Commrs.).
Square 997, day labor, 1892.
Square 1000, day labor, 1892.
Square 1001, day labor, 1896.
Square 1003, day labor, 1886, 1887.
Square 1004, day labor, 1887; contract No. 1270 (Commrs.).
Square 1005, day labor, 1889, 1893.
Square 1008, day labor, 1892; contract No. 1468 (Commrs.).
Square 1012, day labor, 1891, 1892.
Square 1013, day labor, 1896.
Square 1015, day labor, 1893.
Square 1018, day labor, 1890.
Square 1020, day labor, 1887, 1889, 189
Square 1023, day labor, 1887, 1892, 189
Square 1026, day labor, 1883, 1897; co tract No. 449 (Commrs.).
Square 1027, day labor, 1889, 1891, 18 1893, 1894.
Square 1028, day labor, 1890.
Square 1029, day labor, 1893; contra No. 1715 (Commrs.).
Square 1033, day labor, 1891.
Square 1039, day labor, 1897.
Square 1041, day labor, 1896.
Square 1042, day labor, 1894, 1897.
Square 1049, day labor, 1887.
Square 1051, day labor, 1892.
Square 1052, day labor, 1893, 1895.
Square 1055, day labor, 1897.
Square 1155, day labor, 1888.
Square 1184, day labor, 1894.
Square 1186, day labor, 1892.
Square 1188, day labor, 1890, 1891, 18
Square 1189, day labor, 1896.
Square 1190, contract No. 860 (B. P. W
Square 1192, day labor, 1887.
Square 1198, day labor, 1895.
Square 1199, day labor, 1894, 1896.
Square 1207, day labor, 1897; contra No. 586 (Commrs.).
Square 1208, day labor, 1879, 1895, 18
Square 1210, day labor, 1888.
Square 1211, day labor, 1880.
Square 1214, day labor, 1886.
Square 1215, day labor, 1892.
Square 1219, contract No. 586 (Commrs
Square 1221, day labor, 1886.
Square 1223, day labor, 1885.
Square 1227, day labor, 1891.
Square 1229, day labor, 1896; contra No. 586 (Commrs.).
Square 1230, contract No. 586 (Commrs
Square 1231, contract No. 1034 (B. P. & C.).
Square 1232, contract No. 1034 (B. P. & C.).
Square 1239, day labor, 1894 Repl.[1]
Square 1244, day labor, 1886.
Square 1245, day labor, 1892.
Square 1246, day labor, 1876.
Square 1248, day labor, 1890.
Square 1254, day labor. 1889.
Square 1255, day labor, 1888; contra No. 5 (Commrs.).
Square 1265, day labor, 1892.
Square 1269, contract No. 5 (Commrs
Square 1272, contract No. 5 (Commrs
Square 1282, day labor, 1877, 1893, 18 contract No. 1723 (Commrs.).
Square 1308, contract No. 15 (Commrs.).
Square 1304, day labor, 1888.

[1] Original sewer constructed under contract with B. P. W.

Anacostia.—Alley between Jefferson and Pleasant, Fillmore and Nichols, day labor, 1894; alley rear of Valley street, between Pierce and High, day labor, 1897.

Anacostia, Chichester's addition to.—Lot 5, day labor, 1890.

Burleith.—South of U street, day labor, 1888.

Bloomingdale.—Block 8, day labor, 1896.

Columbian College addition.—Block 1, day labor, 1886 and 1889; block 38, day labor, 1892.

Connecticut Avenue Heights.—Block 2, day labor, 1895; block 3, day labor, 1895.

Dent's addition.—Day labor, 1893.

Fifteenth and Sixteenth streets, Massachusetts and Rhode Island avenues.—Street between, day labor, 1891.

F street and Easbys Point intercepting sewer.—Potomac River to Fifteenth street and Pennsylvania avenue, contract No. 1794 (Commrs.); Fifteenth street and Pennsylvania avenue to Seventh and F streets, contract No. 2328 (Commrs.).

Howard University addition.—Block 2, day labor, 1891, 1892; block 19, day labor, 1894.

Ingleside Terrace.—Block 4, day labor, 1897.

Kalorama Heights.—Block 7, day labor, 1892.

Le Droit Park.—Block 3, day labor, 1890, 1891, 1892; block 1, day labor, 1892; block 5, day labor, 1893; block 10, day labor, 1894.

Long Meadows.—Block 27, day labor, 1893; block 28, day labor, 1893; block 29, day labor, 1892; block 30, day labor, 1894.

Petworth.—Block 31, day labor, 1894.

Petworth, West.—Alley between Richmond and Savannah, Minnesota avenue and Seventh street, contract No. 2387 (Commrs.).

Public space.—Tenth to Georgia avenue SE., day labor, 1896.

Reno.—Block 10, day labor, 1895; block 11, day labor, 1895.

Reservation No. 2.—Contract No. 316 (Commrs.).

Reservation No. 10.—August 4, 1865 (C. W.), day labor, 1886, 1888, 1890.

Reservation No. 11.—May 3, 1866 (C. W.); day labor, 1895.

Reservation No. 13.—Workhouse, day labor, 1879.

Reservation No. 15.—Contract No. 1287 (Commrs.); day labor, 1895.

Reservation No. 16.—Day labor, 1895.

Reservation No. 55.—Contract No. 1900 (Commrs.).

Rosedale.—Block 27, day labor, 1894; block 30, day labor, 1897.

Square A.—Day labor, 1890, May 18, 1866 (C. W.).

Square B.—Day labor, 1892, 1892 Repl.; May 12, 1839.

Square C.—Day labor, 1888.

Square D.—Contracts Nos. 1909, 1916 (Commrs.).

Tenleytown road.—Schoolhouse, drain for, day labor, 1896.

Trinidad.—Block 1, contract No. 1468 (Commrs.); day labor, 1894; block 2, contract Nos. 1387, 1473 (Commrs.); day labor, 1891, 1893; Block 3, contract Nos. 1387, 1797 (Commrs.); day labor, 1894, 1896; block 6, day labor, 1894; block 7, day labor, 1894; alley in King's addition, day labor, 1896, 1897; from Bladensburg road, across Long Meadows, and north on Trinidad street to King street, contract No. 1906 (Commrs.).

Washington Heights.—Block 7, day labor, 1894; block 30, day labor, 1894.

Weems, Mrs. R. A. D., across lands of.—Between Piney Branch road and Seventh street, contract No. 2218 (Commrs.).

White House grounds.—Contract No. 177 (Commrs.).

Sewer between Ninth and Tenth streets from B street northward.—Pennsylvania avenue, from Ninth to Tenth street, October 20, 1810, May 9, 1811 (C.W.); F street, between Ninth and Tenth streets, July 26, 1815 (C.W.); E street, between Ninth and Tenth streets, October 9, 1817 (C.W.); C street, between Ninth and Tenth streets, July 11, 1820, April 5, 1821, July 11, 1821; D street, between Ninth and Tenth streets, September 3, 1827, March 25, 1828 (C.W.); C, D, E, F, and G streets, between Ninth and Tenth streets, September 4, 1840 (C.W.); E street, between Ninth and Tenth streets, April 17, 1845 (C.W.), and May 29, 1845, October 23, 1847, Oct. 16, 1850 (C.W.); Louisiana avenue, between Ninth and Tenth streets, May 8, 1845 (C.W.), May 6, 1846; F street, between Ninth and Tenth streets, December 21, 1847 (C.W.); Pennsylvanin avenue, between Ninth and Tenth streets, November 12, 1849; Tenth street, from G to I streets, August 8, 1851.

Miscellaneous contracts.—Clean, repair, and build manholes, contract No. 878 (B. P. W. & C.); construct steam pump, contract No. 190 (Commrs.); dredge James Creek Canal, contract No. 383 (Commrs.); construct receiving basins, contract No. 580 (Commrs.); construct receiving basins, contract No. 592 (Commrs.).

REPORT OF THE INSPECTOR OF PLUMBING.

WASHINGTON, *August 26, 1897.*

DEAR SIR: The operations of the division of plumbing inspection during the fiscal year ended June 30, 1897, show a marked increase in the number of inspections over those made in any previous year, the total being 14,113 recorded inspections, the details of which comprise 3,315 examinations of existing plumbing, 2,817 inspections of work in new buildings; 6,226 inspections of remodeling, extensions, or repairs to plumbing; 313 peppermint tests of piping systems, 671 inspections of gas piping or fixtures, and 771 inspections of lead water services. The total for the preceding year was 8,677, a difference of 5,436.

This increase is due to four principal causes: The introduction, through the operation of the compulsory act, of house sewers and water supplies into many premises heretofore unserved; the greater facility of movement afforded the assistant inspectors by their equipment with bicycles; the increase of one-sixth in the force of assistants; and an added attention to the fullness of the record of inspections made.

The act of Congress, approved May 18, 1896, compelling the connection of undrained and unsewered premises with the sewer system, and the substitution of water-closets for privies, has resulted in the service of nearly 1,700 notices by the health officer, of which it is believed at least 1,000 have now been complied with. Each of these cases has required two or more inspections.

In July, 1896, two additions were made to the corps of assistants. John J. Ryan was appointed to the position of assistant inspector of gas fitting, made vacant by promoting Richard A. O'Brien to the vacancy caused by the death of John F. Murphy, and John J. Daly was appointed to the additional inspectorship provided by the appropriation act. Both of these gentlemen were appointed after due certification by the United States Civil Service Commission as having attained the requisite proficiency in competitive examinations for their respective positions, and both have shown aptitude and zeal in discharging the duties assigned to them. With this added force it has been found practicable to detail Assistant O'Brien to urgency inspection service and office duty, with a resulting increase of efficiency in both of these directions, especially in the completeness of the record of inspections and decisions.

The examination and approval of plans and specifications of the plumbing systems for new buildings has been conducted as heretofore, the total number considered having decreased from 964 in the previous year to 721 for the year just passed. The present record includes six apartment buildings, which in the arrangement and completeness of their plumbing compare favorably with that class of structures erected elsewhere. Especial attention has been directed to securing an advance upon the current practice regarding location and directness of run of soil lines, and with good results.

It is my conviction that frame bathrooms should not be authorized, as at present, to be added to brick dwellings, for the reason that it is impracticable to adequately protect the waste and supply lines located in such supplementary structures against the effects of frost and the settlement of walls and floors.

The number of two-story houses in which the use of 3-inch soil stacks has been authorized in the past six months is 50, a number sufficient to show that the apprehension of stoppage which was felt by plumbers upon their introduction no longer exists. I am not informed that a single case of obstruction has resulted from the use of the smaller size as now designed. The advantages gained, as stated in the last annual report, consist in greater ease of construction within a 4-inch partition, a more thorough flushing at each discharge of the closet, and a decrease of nearly one-half in the fouled surface. It is believed that the greater security attained by the substitution of galvanized wrought-iron pipe with recessed-threaded fittings for the common cast-iron soil stacks of small size will justify the slight increase in the cost of the material.

The understanding had with the inspector of buildings relative to the advance approval of plumbing plans for repairs and reconstruction of buildings has now been brought into a permanent and recognized form by requirements made in the new building regulations.

By the coincidence of three conditions, viz, a new main sewer system, recent house plumbing, and isolation of dwellings from each other, attending the introduction of sewerage into the Eckington Valley and Brookland drainage area, an opportunity was afforded for the safe omission of running traps from the house sewers of this district. The Commissioners, upon consideration of the facts,

ordered that traps be not required within the limits specified, an exception which, it is hoped, may in the future be applied to certain other watersheds.

The third edition of the plumbing regulations, which includes eighteen changes not heretofore published, was available for distribution on May 1. Most of the amendments are minor ones, intended to adjust the requirements more nearly to the office practice, but certain of the more important are worthy of mention. It is now provided that all exterior stopcocks on water service lines are to be supplied by the water department; that all tapping of main sewers, whether the material be of brick or vitrified pipe, shall be done by an employee of the District and not by the plumbers; that the back vent from a water-closet trap may be omitted if the fixture is the upper or only closet on the stack and has its center within 2 feet of the center of the stack; that water services be laid to specified depths, and that a terra cotta fresh-air inlet pipe shall be terminated at the ground level with cast iron.

It has frequently come to my notice that many well-informed citizens have no knowledge of the willingness of this office to render assistance without charge to such as desire to determine whether the plumbing work in their homes is in safe condition or otherwise. Indeed, many who understand, in a vague way, the dangers arising through the admission of sewer air to their dwellings fail, either through apathy or the fear of expense, to obtain any assurance that their own persons and families are protected against this insidious foe. In 1895 Mr. Reuben S. Bemis, inspector of plumbing for Providence, R. I., addressed to householders a circular inviting their attention, by a series of questions, to the importance of the systematic inspection of the different portions of the house plumbing. A similar set of queries was inserted by Andrew Young, the well-known chief inspector of plumbing of Chicago, into his report for last year. I suggest the desirability of following these precedents by issuing a carefully prepared circular letter, so phrased as not to excite undue alarm in overcautious minds, but indicating where common defects in old plumbing may be looked for and the nature of such defects, as well as the readiness of this bureau to afford expert service by advice or examination, and tendering its free cooperation in making tests of house plumbing.

Some study was given, during the winter of 1894–95, to determining the best practical method of obviating the dangers of accidental asphyxiation through the escape of illuminating gas due to defects in old fixtures and pipes, and that investigation has been continued during the period covered by this report. An opinion was expressed by the coroner in January, 1895, that deaths which took place about that time at No. 922 G street SW. and No. 33 H street NE. were "due entirely to defective gas fixtures." He at that time recommended that a thorough "inspection of all buildings, especially sleeping apartments therein, be made relative to the condition of gas fixtures therein." Two similar instances were brought to public notice during this year. The death of Mr. Warren McCoy, at No. 906 I street NW., on December 28, 1896, and that of Louis B. Butler, on January 5, 1897, at the American House, appear to have been directly caused by the accidental opening of seriously defective gas keys.

In February, 1897, a list of the principal hotels and boarding houses was collated and forwarded to the Commissioners with a request that it be determined if authority existed to make inspection of the gas appliances in these buildings. The opinion rendered by the attorney was an adverse one, and no further action was taken. I consider that the conditions justify the enactment of a statute allowing the entrance of my assistants for such examination, and compelling repairs after due service of notice.

That this subject is deemed of pressing importance in other municipalities is evidenced by the report made to the Massachusetts legislature by the board of gas and electric light commissioners of the city of Boston on February 20, 1897. The report states that four propositions have been considered by the board: "First, to require the use in the sleeping rooms of hotels and lodging houses of some kind of burner from which the gas can not escape except when lighted; second, to prohibit the use of gas in sleeping rooms which contain less than a definite number of cubic feet; third, to provide for the systematic inspection of gas fixtures and piping by some duly authorized public officer; fourth, to define by statute the amount of carbonic oxide or other ingredient which may exist in the gas, and to prohibit the distribution of gas containing an excess of such ingredients."

The apparent conclusion reached by this board respecting the third method is that the number of fixtures (estimated at 1,200,000 burners in the city of Boston) is prohibitory of the proposed inspection. I do not agree with this conclusion, but consider it entirely feasible to make periodic inspections of the condition of a very large number of gas fixtures if the requisite authorization can be secured.

In addition to the current inspection and office work, there was undertaken and

completed an examination of the plumbing in all the buildings occupied purposes in the District, including those rented as well as those owned. eral condition of the plumbing in a majority of the buildings was found t but in some of the older schools and rented buildings extensive repairs an ments should be made. The terra-cotta or brick drains should in all replaced with cast iron, and many old fixtures with inadequate vent li be overhauled or displaced. Only a limited number of the buildings are with suitable separate toilet facilities for the teachers.

The notes taken have been tabulated and placed at the disposal of the charge of repairs to schoolhouses, and will afford him a basis for estim cost of the renewals and repairs necessary. To maintain a proper st safety in school plumbing it should be periodically examined and te expert, and it is hoped that a system for such examination may be de kept in force.

In connection with my consideration of the best type of school plumbi tenances I was enabled to visit public school buildings in the city of Phi most of which were of recent construction. The main closets for som buildings consist of vaults placed in a yard in apartments unprovided w of heating, an arrangement not at all in keeping with the otherwise fin ments of these excellent schoolhouses. The plumbing facilities for t teachers are of high grade, and well protected within the buildings.

Two inclosures are transmitted herewith. One of these is a list c plumbers at this date. The second is a drawing of a typical section of a house plumbing, delineated by Mr. Charles D. Cole, of the water depart illustrating the application of the requirements of the plumbing regulat various parts of a house design.

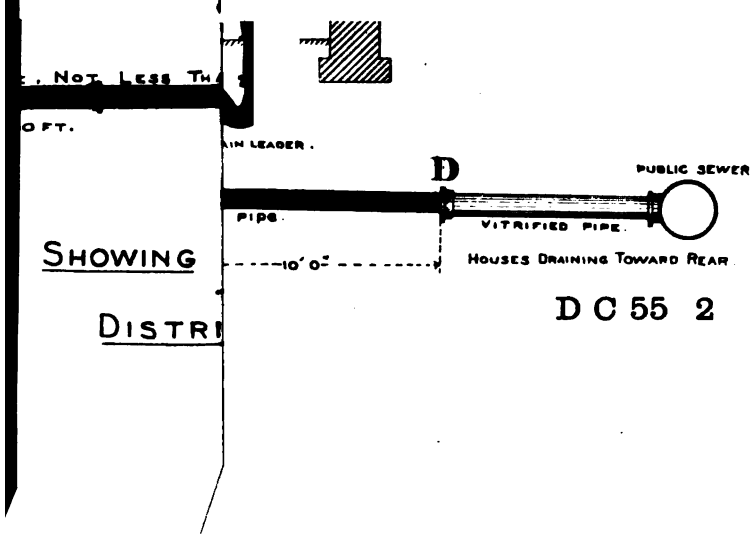
Respectfully submitted.

CHAS. B. BALL, *Inspector of Pl*

Capt. W. M. BLACK,
Engineer Commissioner of the District of Columbia.
(Through Capt. Lansing H. Beach, Assistant to Engineer Commi

List of licensed plumbers.

Names.	Addresses.	Names.	Addr
Albinson, James E	1512 Fourteenth street NW.	Carroll, Jas. O	707 Thirte SE.
Allen & Van Horn	1127 Fifteenth street NW.	Caverly, Edw. & C	1216 F stre
Anadale, J. A	1234½ Ninth street NW.	Caverly, Robert B	918 F stree
Anderson, Jas. F	304 B street SE.	Clarke, James B	716 Eighth
Artz, Samuel	3007 M street NW.	Clark, Thos. C	1220 Fifth
Ashton, Geo. W	702 E street SW.	Connor Bros	1542 Ninth
Atchison, Jul. I	1316 Fourteenth street NW.	Craemer, J. A. & Bro	1922 Fourt NW.
Barnard, Edw	807 Eighteenth street NW.	Cunningham, Jas	1408 Penns nue NW
Barrick, Chas. E	214 Thirteen-and-a-half street SW.	Conradis, Wm	712 M stre
Baur, Jos. A	931 Fifth street NE.	Craven, Jno. F	1905 Sev NW.
Beuchler, R. A	605 Thirteenth street NW.	Daly, Frank & Co	638 G stre
Betker, Jno. A	2104 Vermont avenue NW	Daly, Peter	419 Third
Beuter, Max. A	606 D street NW.	Davis & Kibbey	404 R stree
Blake, Wm. A	624 North Capitol street NW.	Dent, A. S	816 Ninete NW.
Bond, Jos. A	117 Pennsylvania avenue NW.	Dessez, Chas. E	811 Twen street N
Bontz & Stutz	1100 Q street NW.	Dougherty, W. W	488 Louisi NW.
Bouis, Wm. R	505 Eleventh street NW	Donaldson, T. S	716 Sixth s
Bounds, O. F	Camden Station, Md.	Dorsett, Chas. A	1110 Park
Brill & Hayden	308 Pennsylvania avenue NW.	Duffy, Wm	1130 Nort street.
Brooks, Ruf. C	618 D street NW.	Enright & Newmeyer	228 O stree
Brown, Thos	618 D street SW.	Fingles, P. J	620 Fourte NW.
Busey, Walter	1214 Second street NW.	Fitzgerald, Richd	26 G street
Campbell, Wm. P	437½ Tenth street SW	Flack, Wm. P	505 H stree
Campbell, Robt. G	517 Tenth street NW.	Fowler & McCarthy	2348 Brigl nue NW
Campbell, G. G	Do.	French & Bennett	2008 I stree
Carmody, John	1241 Sixth street SW.	Gaghan, Jno	717 Eleve NW.



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List of licensed plumbers—Continued.

Names.	Addresses.	Names.	Addresses.
Michael	1211 Seventh street NW.	Niland, Patrick	1251 Twenty-second street NW.
r, B. D	471 D street SW.	Nolan, James	721 Fourteenth street NW.
Geo. W	504 Maryland avenue SW.	Noonan, T. V	1425 P street NW.
Edw	124 B street NE.	Noonan, Thos. S	2140 Ward place NW.
n. E	321 Missouri avenue NW.	O'Brien, M. J	24 Patterson street NE.
eo. A	418 C street SE.	O'Connor, Danl	1282 Thirty-second street NW.
no. R	435 N street NW.	O'Donnell, D. A	1248 Seventh street NW.
Daniel	517 F street NW.	O'Hagan, James	1917 Pennsylvania avenue NW.
Eugene	1416 New Jersey avenue NW.	Power, Jno. A., & Co	430 Tenth street NW.
P. F	1519 Seventeenth street NW.	Pruitt, Norman	814 H street NW.
I. W	619 G street SW.	Purcell, Chas. J	483 N street NW.
, Jas. T., & Son	603 Pennsylvania avenue SE.	Quigley, Patk	407 Second street NE.
, J. T., jr	29 Monroe street, Anacostia.	Quilter, Thos. E	2300 Brightwood avenue NW.
Bro	508 Eleventh street NW.	Quinter, Jos. R	1414 Rhode Island avenue NW.
Jos. A	206 East Capitol street.	Quinter, Wm. E	3811 Brightwood avenue NW.
as. F	417 Four-and-a-half street SW.	Ragan, Jas	1503 Pennsylvania avenue NW.
ey, Thos	1335 F street NW.	Regan, Cornelius	1371 Florida avenue NE.
. W	713 D street NW.	Reynolds, Wm	1728 Pennsylvania avenue NW.
Thos	1338 Fourteenth street NW.	Roach, James	1318 Pennsylvania avenue NW
, Geo. E	1208 E street NW.	Robertson, Jas, P	531 Fifteenth street NW.
Albert A	112 F street NW.	Rothwell, Wm	24 Ninth street NE.
, Denis	1405 Twelfth street NE.	Roys & Roys	646 E street SE.
& Schaefer	306 Pennsylvania avenue SE.	Schaeffer, Geo. F	223 D street NW.
ohn	17½ H street NE.	Schlosser, J. G	625 G street SE.
n	724 Thirteenth street NW.	Shedd, S. S., & Bro	432 Ninth street NW.
ohn	1020 Eighteenth street NW.	Shepherd, A. R	913 New Jersey avenue NW.
, J. B	321 H street NE.	Sherwood, S. H	451 P street NW.
, E. G	2720 M street NW.	Slattery, Edw. D., jr	1105 E street NW.
l, Jas	509 Fourteenth street NW.	Soper, B. Alfred	642 F street NE.
l, Chas	3027 M street NW.	Sparrow, Wm. A	806 North Capitol street.
y, Robt. G	1741 K street NW.	Spearing, Saml. J	450 Pennsylvania avenue NW.
rl L	1214 E street NW.	Spellman, Wm. H., & Co	1759 R street NW.
eo. H	711 Thirteenth street NE.	Strobel, Robert	207 Seventh street SW.
dmd., jr	604 Fifth street NW.	Suit, Jas. F	1614 L street NW.
Lawrence J	1619 L street NW.	Suman, Jas. F	902 H street NW.
, F. L	507 Seventh street SW.	Swann, Jno	1509 M street NW.
W. H	1229 H street NW.	Sweet, Wm. T	215 Four-and a-half street NW.
Geo. F	1332 H street NW.	Thomas, Wm	625 K street NW.
, Jno. H	1917 Seventeenth street NW	Thomas, Wm. A	1321 Ninth street NW.
	1127 Seventh street NW.	Thorn, Chas. G	1213 F street NW.
ott, J. H	712 Thirteenth street NW.	Tilp, Fredk	804 M street NW.
n, Jno. J	2326 H street NW.	Tompkins, Ed. H	517 H street NE.
, Francis P	918 F street NW.	Trainor, Jno	American University.
dmd. B	1004 Ninth street NW.	Umhau, C. F	1714 Seventh street NW.
n, Geo. T	717 Seventeenth street NW.	Venable, Frank W	916 Fourth street SE.
	1207 Eleventh street SE.	Volland, Edw	1724 Fifth street NW.
Jno	621 Fourteenth street NW.	Wall, Wm	916 Twenty-sixth street NW.
ohn	2128 Pennsylvania avenue NW.	Ward, Wm. N	924 Fourth street NE.
& Barco	1303 H street N. W.	Waters & Poore	1261 Thirty-second street NW.
Danl. J	1104 Connecticut avenue NW.	Welsh Bros	1710 Nineteenth street NW.
Jno. W	1813 Fourteenth street NW.	Williamson, Donald S	605 New York avenue NW.
Philip H	511 Sixth street NE.	Wolters, Fredk. A	1004 Four-and-a-half street SW.
		Work, Wm. J	725 Ninth street NE.

INGTON, D. C., *August 26, 1897.*

REPORT OF THE PERMIT CLERK.

WASHINGTON, *August 4, 1897.*

Permits issued during the year were:

Water connections	1,774	
Water repairs	831	
Water specials	847	
		3,4
Sewer connections	1,874	
Sewer repairs	992	
Sewer specials	283	
		3,1
Gas and electric light connections	953	
Gas and electric light repairs	165	
Gas and electric light specials	19	
		1,1
Lay gas mains		
Lay and repair main and branch conduits		
Erect and replace telegraph and telephone poles		1
Erect railings to inclose parkings		3
Alleys, close temporarily		
Alleys, grade		
Alleys, place fender stones in to protect walls		
Bridges, haul over loads of 6 tons and over		
Bridges, remove floor temporarily		
Bridges, sprinkle sand on to prevent slipping		
Cables, string fender		
Carriage blocks, place at curb		
Conduits, lay or lower (no fee)		
Conduits, railroad, lay (Capitol Railway Company)		
Conduits, connect railroad to sewer		
Copings, erect around parkings		
Cables, repair underground		
Cables, operate rope to furnish power		
Cables, haul from railroad depots to power houses		
Driveways, lay across sidewalks and parkings		
Drains, lay		
Drains, clear		
Drilling machine, place on street		
Excavations (miscellaneous)		
Electric lights, place on brackets and awning frames		
Fences, erect temporary (no fee)		
Fences, replace and repair		4
Flume, connect		
Gutters, bridge		
Gutters, build of cement		
Gas pipe, lay		
Gas stopcock-boxes, adjust to grade (general permits)		
Hitching posts, erect and straighten		
Hitching posts, remove and repair		
Heating kettle, place on street		
Heating pipe, lay across alley		
Leads across parking, lay		
Leads across parking, repair and relay		1
Lamps, put signs on		
Lamps, repair (private)		
Material, place construction on streets		
Materials, take from unimproved streets		
Materials, take from streets (parking commission)		
Man-hole covers, remove temporarily		
Oil mains, lay		
Oil mains, change location of		
Parkings, grade		
Parkings, pave over		
Parkings, place refreshment stands on		
Parkings, place tent on temporarily		
Parkings, sod and plant flowers in		
Poles, erect by District of Columbia		
Poles, erect lines of trolley		

rect by B. & P. R. R. Co	1
rect for electric lights (private)	5
ox, move and relocate	1
ls, construct and repair (steam and street)	20
ls, lay temporary cross-overs	4
ls, lay sidings	2
ls, repair safety gates	2
ls, erect signal post	1
ls, general, to repair telegraph line	1
ks, lay	33
ks, lay board	1
ks, cut in front of Executive Mansion	1
ks, repair	212
ks, grade	4
ks, haul over	32
ks, put sockets in	1
nove back to building line	1
lay	2
clear	3
k boxes, adjust to grade	2
n engines, move over streets and roads	11
ut down	4
lace sign on temporarily	1
aint box	1
od space in sidewalk	2
hitewash	44
s on parking, build and repair	5
s on parking, erect and replace steps	51
erect overhead connections	53
renew lines of existing legal lines	7
replace iron with copper	17
string and repair	19
place on bridges	3
ervice mains, lay (Ingleside)	1
ervice repair	1
oncrete	2
build retaining	14
es, repair and drive piles to protect	3
to United States Government:	
lear sewer lateral at Marine Barracks	3
ut down trees	1
emove bird's nests from (Naval Hospital)	1
onnect with sewer (Bureau of Engraving and Printing)	1
lake excavations (officer in charge of Public Buildings and Grounds)	1
to inaugural committee, 1897	3
to employees District of Columbia	314
rand total	10,155

has been a slight decrease in the number of permits issued as compared e fiscal year ended June 30, 1896, but the amount received for permit fees, n by the report of the collector of taxes District of Columbia, for the fiscal 96–97 is $119 more than for the fiscal year 1895–96.

its issued during the fiscal year:

	11,453
	10,155

ollowing table shows the number of permits issued during the five pre- years and the amount of money paid the collector of taxes District of ia during that time:

Fiscal year.	Permits issued.	Fees paid.
	9,456	$8,631
	12,989	12,214
	8,064	7,024
	8,740	7,229
	11,453	7,236
	10,155	7,355

In addition to issuing the permits, 483 communications have been referred to this office, necessitating their being entered in the letters-received book, permits written for the majority of them, the action noted, and their return to the record office of the engineer department of the District of Columbia.

Sixteen hundred and sixty-eight names have been recorded for positions as laborers on the different works of the District of Columbia during the fiscal year ended June 30, 1897.

The continued improvements of the roadways, and especially the sidewalks, in all sections of the District of Columbia, replacing the brick sidewalks with cement or granolithic, also increases the work of the office, for when plumbers or other persons having permits to make excavations the permit must have stamped on the face the kind of pavement to be cut. The office is also required to know that there is a deposit to the credit of the person to whom the permit is issued sufficient to pay the cost of the repairs. In the case of registered plumbers they are required to make a deposit of $50 before being granted a permit to make a cut in any paved street, with the collector of taxes, and against this deposit is charged the cost of repairing the cuts made by them. The location is reported to the superintendent of streets, now to the computing engineer, and the repairs are made by employees of that division of the engineer department. When the amount charged for repairs against any plumber is $40, he is notified by statement from this office, and must bring his balance to the original amount ($50) before additional permits can be issued to make excavations in improved roadways or sidewalks. Should the cost of repairs exceed the deposit, no permits can be issued to the plumber who fails to settle his indebtedness after receiving notice from this office. The vouchers showing the cost of each cut repaired are paid by the auditor of the District of Columbia, a copy of each deposit and repair being kept in this office.

The following shows the amount charged against the deposits of the plumbers and companies owning underground subways, mains, and conduits for work done by the street department in repairing cuts made by them:

Name.	Amount.	Name.	Amount.
J. A. Anadale	$27.74	Jas. F. Horan	63.51
Jas. E. Albinson	18.22	Ed. J. Hannah	13.35
J. I. Atchison	31.20	Jos. A. Herbert	44.01
Samuel Artz	72.27	J. T. Harrison & Son	16.65
Geo. W. Ashton	69.67	Geo. E. Hutchins	4.50
Henry J. Allen	27.82	J. W. Hurley	15.61
Allen & Van Horn	20.97	Thomas Humphrey	16.54
Jos. De Bond	39.60	J. T. Harrison, jr	18.23
Bowden & Buechler	34.53	P. F. Hannan	34.01
Brill & Hayden	36.10	Hill & Prigg	18.77
Thomas Brown	13.73	J. Wm. Harper	67.02
R. C. Brooks	43.47	John Krause	18.06
C. E. Barrick	90.71	John Keppel	7.21
Max. A. Beuter	44.46	Kennedy & Schaefer	40.62
Ed. Barnard	17.10	William Koch	46.70
Wm. R. Bouis	25.06	J. B. Lanahan	5.62
Bontz & Stutz	50.68	Chas. Lockhead	52.71
Jos. A. Baur	2.14	Jas. Lockhead	20.60
John Carmody	66.78	Geo. T. McIntosh	138.00
J. F. Craven	3.60	John Moran	43.25
John Cantwell	79.69	R. Mills	1.20
Edward Caverly & Co	127.08	F. L. Marsden	14.05
Wm. P. Campbell	39.86	Geo. H. Maisak	21.19
J. A. Creamer & Bro	29.47	D. J. Murphy	14.03
Robt. B. Caverly	27.95	E. Mallet, jr	50.96
Thos. C. Clark	6.75	John Mitchell	11.55
Chesapeake & Potomac Telephone Co	525.52	J. W. Musson	9.90
Connor Bros	88.96	R. McBee	17.74
Devereux & Gaghan	14.98	Geo. F. McAvoy	4.83
A. S. Dent	60.14	John J. McMahon	36.93
William Duffy	16.02	James Nolan	97.13
Davis & Kibbey	17.52	P. T. Niland	31.09
C. E. Dessez	14.18	Daniel O'Connor	13.65
Peter Daly	11.86	D. A. O'Donnell	36.35
Frank Daly & Co	2.70	Jas. O'Hagan	23.81
C. A. Dorsett	85.60	John A. Power & Co	56.02
E. B. Myers	64.76	Postal Telegraph Cable Co	174.27
Enright and Newmeyer	9.90	Norman Pruitt	11.19
R. Fitzgerald	11.18	Jos. R. Quinter	160.72
Georgetown Gas Light Co	108.32	Thos. F. Quilter	33.00
Geo. A. Green	12.93	William Reynolds	6.03
M. Gaghan	10.52	John E. Rodbird	11.95
Edwd. Gorman	.56	James Ragan	16.09
French & Bennett	2.70	William Rothwell	82.85
Daniel Hannan	51.24	Jas. P. Robertson	80.99
		James Roache	.90

Name.	Amount.	Name.	Amount.
Reinberg & Carroll	44.59	Jas. Cunningham	35.75
Jas. O. Carroll	6.75	William Wall	13.92
G. E. Schaeffer	13.73	Fred. A. Wolters	36.05
Saml. J. Spearing	16.05	Wm. J. Work	8.44
A. R. Shepherd	37.55	Waters & Poor	60.54
Jas. L. Suman	12.05	Potomac Electric Power Co	10,220.58
S. S. Shedd & Bro	152.71	Wm. P. Flack	51.04
Danl. P. Sullivan	6.15	Saml. B. Rose	10.69
Saml. H. Sherwood	5.70	Walter Busey	5.40
J. G. Schlosser & Co	15.75	Mulcare & Barco	56.54
B. A. Soper	10.53	E. G. Lansdale	14.11
Edwd. D. Slattery	19.89	C. Regan	53.07
John Swann	4.62	Quinter & Conradis	46.49
Fred Tilp	49.90	L. J. Mangan	11.01
C. G. Thorn	113.71	Healy & Bro	54.30
Wm. A. Thomas	32.28	P. H. Nealon	1.80
E. A. Tompkins	49.11	Ed. Volland	13.04
William Thomas	11.04	W. A. Blake	1.95
C. F. Umhau	56.06	Welsh Bros	1.13
United States Electric Lighting Co	5,301.11	Thos. S. Noonan	3.20
F. W. Venable	21.26	Washington Gas Light Co	2,217.50
Wm. N. Ward	15.94	William Conradis	9.39
D. S. Williamson	49.74		

Great care has to be exercised by the force of this office to notify all persons having permits to make excavations of the location of electric-light, telegraph, and telephone wires in the roads, sidewalks, and alleys to guard them from injury by the tools of the workmen.

All permits to make excavations to connect with or repair underground constructions, erect parking fences, hitching posts along the inner edge of the curb, place carriage blocks of prescribed dimensions at the curb, etc., are issued from this office. With the exception of work done by the employees of the District of Columbia and special permits allowed by the plumbing regulations or ordered by the Commissioners of the District of Columbia, a fee of $1 is charged for each building, lot, premises, or establishment connected and for each excavation made for repairing pipes or other underground structures. This fee is in all cases paid the collector of taxes of the District of Columbia and his receipt entered upon the application before the permit is issued, all other employees of the District of Columbia being prohibited from collecting or receiving or in any manner being the medium for the transmission of funds of any kind whatever due or payable to the District of Columbia.

Very respectfully,

H. M. WOODWARD,
Permit Clerk District of Columbia.

Capt. W. M. BLACK,
Corps of Engineers, U. S. A.,
Engineer Commissioner District of Columbia.

(Through Capt. Lansing H. Beach, Corps of Engineers, U. S. A., asssistant to Engineer Commissioner.)

REPORT OF INSPECTOR OF ASPHALT AND CEMENTS.

SIR: The work of testing during the year may be summarized as follows:

Hydraulic cements:		
Natural, brands 7, samples	5,198	
Portland, brands 14, samples	1,569	
		6,767
Asphalts:		
Crude Trinidad, 2 cargoes, samples	13	
Residuum oils	15	
Refined asphalts	2	
Surface mixtures	90	
Miscellaneous asphalts	7	
		127
Sands	2	
Waters	64	
Miscellaneous	11	
		77
Total		6,871

HYDRAULIC CEMENTS.

The number of barrels inspected and the average of tests of each brand of cement will be found below.

NATURAL CEMENTS.

The 5,198 samples of natural cement represent 51,980 barrels, 3,343 of which were rejected.

TABLE A.

Brand.	Number of barrels.	Number of samples.	Per cent residue, 100-mesh.	Initial set.	Per cent water used.		Temperature of air and water.	Tensile strength.		
					Neat.	2 parts sand.		1 day.	7 days.	7 days, 2 parts sand.
				H. M.						
Cumberland	13,800	1,380	14.6	0 36	31.3	14.1	72.8	127.6	234.8	112.6
Cumberland and Potomac	2,886	288	15	0 34	31.2	14.7	71.7	108	235.3	140
Lawrenceville	15,923	1,592	17.2	1 06	28.2	14	73	133.2	173	75.6
Norton's Rosendale	1	1	10	3 00	31	14	70	54	103	32
Potomac	300	30	27	0 27	29	12	74	82	102	51
Round Top	19,068	1,906	16	0 20	30	14	75	111.5	190.2	90.2
Anchor	1	1	18	1 50	23	12	84	48	115	47

PORTLAND CEMENTS.

The 1,569 samples of Portland cement represent 15,690 barrels, 301 of which were rejected.

TABLE B.

Brand.	Number of barrels.	Number of samples.	Per cent residue, 100 mesh.	Initial set.	Per cent water used.		Temperature of air and water.	Tensile strength.		
					Neat.	Three parts sand.		1 day.	7 days.	7 days, three parts sand.
				H. M.						
Alpha	1	1	5	1 0	20	10	84	318	428	180
Atlas	1,475	147	7.5	2 40	19.6	9.5	71.5	345.6	710.6	282.5
Brooks Shoobridge	1,711	171	7	3 0	22	10	74	291.4	535	198.3
Germania	7,315	731	6.4	3 40	20.3	9.6	72	315.2	596.2	188.6
Hanover	340	34	9.6	3 40	20.8	9.2	74	370.8	638.8	212
Heyn	3,974	397	6.4	3 10	21	9.1	72.3	339.8	537.4	222.3
Ironclad	2	2	2	7 0	19	9	72	238	624	220
Josson	110	11	6	1 39	20	8	74	378	609	202.5
Keystone	2	2	0	4 0	23	10	68	252	438	176
La Lafarge	1	1	0	6 0	25	9.5	70	85	339	126
Mannheimer	200	20	6	3 0	20	9.5	74	229	544.5	186
Porta	500	50	9.8	1 30	21	9	80.4	311	417	154
Saylor	1	1	1	3 0	20	10	84	457	787	249
White Brothers	1	1	13	0 49	25	10	74	337	387	145

LONG-TIME TESTS ON NATURAL AND PORTLAND CEMENTS.

It should be understood that the tests given in the following table are not supposed to show the relative strength of the different brands, but merely to exhibit the relative gain in strength with age. It can readily be seen by consulting the tables of average tests on cements in this and former reports that some of the samples of cement used in making up these tests are below while others are above the average of their respective brands.

In collecting these samples we endeavored to get as near an average sample as possible by mixing samples taken from numbers of barrels. In the table will be found the number of barrels each sample represents.

TABLE C.

of natural cement.	Per cent of water.		Temperature of—		Tensile strength.						
					Neat.		2 parts quartz.				
	Neat.	2 parts quartz.	Air.	Water.	1 day.	7 days.	7 days.	14 days.	21 days.	1 month.	2 months.
1	32	15	89	88	62	168	48	103	110	124	158
iff	33	15	90	90	88	185	85	145	152	195	252
and	32	15	90	91	169	218	156	208	290	297	307
and and Potomac	32	15	91	91	146	204	188	196	220	225	315
eville		13	70	70			84	102	133	148	208
dstown	31	14	91	92	61	145	106	144	161	210	227
nixed with 3 parts.	22	10	76	75	94	130	74	98	160	181	194
d Union, mixed with 3 partz	21	10	70	68	102	116	95			132	178
Top	32	14	90	90	81	203	122	188	233	255	305

of natural cement.	Tensile strength.											
	2 parts quartz.											
	3 months.	4 months.	5 months.	6 months.	7 months.	8 months.	9 months.	10 months.	11 months.	1 year.	2 years.	3 years.
n	162	161	173	185	180	188	203	228	230	231	240	246
liff	255	256	270	290	309	290	298	304	346	364	384	385
land	356	366	357	350	355	416	406	429	434	438	446	441
land and Potomac	403	388	384	397	394	406	388	423	428	436	490	506
eville	278	290	293	291	293							
dstown	265	283	272	281	305	321	300	301	315	366	356	337
mixed with 3 parts	236	240	244	238	257	262	267	272	306	312	364	
d Union, mixed with quartz	162	198	226	232	258	276	289	295	331	322	326	
Top	342	371	378	387	393	413	428	444	451	515	561	566

TABLE D.

of Portland cement.	Per cent of water.		Temperature of—		Tensile strength.						
					Neat.		3 parts quartz.				
	Neat.	3 parts quartz.	Air.	Water.	1 day.	7 days.	7 days.	14 days.	1 month.	2 months.	3 months.
	21	9	80	80			105		182	310	309
	20	10	70	65	292	635	188		310	290	328
	20	10	90	90	432	768	321		441	441	510
z & Henry	20	10	70	70	149	546	159		188	229	277
loff	21	10	70	70	345	566	164		175	192	236
	20	10	68	65	188	278	159		205	255	240
	21	11	72	72	160	495	230		275	275	267
er	20	10	68	65	295	571	205		244	251	277
re	20	9	78	78	295	657	159		203	286	301
lmer	20	10	78	78	329	525	193		226	306	329
	20	10	70	68	407	415	181		257	305	319
	20	8	82	82	201	461	135		156	205	203
d Silica cement, 1 to 1	22	10	80	80	206	541	216		226	285	319
d Silica cement, 1 to 6	22	10	80	80	21	97	46		89	96	94

TABLE D—Continued.

Brand of Portland cement.	Tensile strength. 3 parts quartz.										
	4 months.	5 months.	6 months.	7 months.	8 months.	9 months.	10 months.	11 months.	1 year.	2 years.	3 years.
Alpha	310	295	327	346	284	295	319	345	350	.....	....
Alsen	385	380	390	381	379	383	374	377	366	371	....
Atlas	519	529	538	538	515	501	569	572	546	523	....
Dufossez & Henry	300	320	319	316	328	322	335	331	332	335	....
Dyckerhoff	257	293	298	315	315	332	340	345	323	370	....
Egypt	285	301	341	351	362	360	375	402	394	417	....
Giant	296	329	325	351	286	304	300	308	327	342	....
Hannover	301	315	315	311	317	335	340	348	354	.....	....
Hemmore	323	329	314	345	356	345	310	308	347	355	....
Mannheimer	335	323	343	342	352	321	341	316	336	.....	....
Porta	315	322	343	250	275	303	329	330	329	349	....
Saylor	254	277	289	276	264	279	295	282	279	.....	....
Standard Silica cement, 1 to 1	336	364	384	377	377	385	394	387	379	.....	....
Standard Silica cement, 1 to 6	108	127	130	135	146	168	187	183	192	.....	....

CRUSHING STRENGTH OF CONCRETE OF DIFFERENT AGGREGATES.

During the past year the investigation to determine the relative crus strength of concretes of different aggregates at various ages ranging from 10 to 1 year has been completed. The report is given in full below:

WASHINGTON, *May 26, 18*

CAPTAIN: I have the honor of reporting on the tests comparing the rel strength of concrete made with various aggregates with natural cement (R Top) and Portland cement (Atlas) mortars.

In these tests I have not tried by careful manipulation to get the maxi strength from the material used, but more to get at the relative value of the se concretes as they are made on the practical work here in the District.

These tests were made by determining the weight required to crush 1-foot of the several concretes at the age of 10 days, 1½ months, 3 months, 6 months 1 year. The molds for these foot cubes were made of cast iron, one-fourth in thickness, stiffened by two heavy ribs. These molds were made in two p which were fastened together at the two opposite corners with bolts.

The concrete was rammed into the mold with an ordinary asphalt tamper.

The ingredients used in the concrete were sent from the District and were sel under my direction as representing the average material then being furnishe concrete in the District.

In mixing the concrete all the ingredients were weighed for each batch, suffi for 2 cubic feet being mixed at a time. The concretes were mixed, by a man rienced in the work, in the usual way. The damp sand was first thoroughly n with the dry cement, after which sufficient water was added to make a pl mortar. This mortar was mixed with the aggregate, which had been previ sprinkled, by turning over with a shovel until every stone was thoroughly c with mortar. The concrete was then shoveled into the molds, care being t that the coarse and fine stone should remain evenly distributed. The molds filled to the depth of 4 inches and lightly rammed, this operation being conti until the molds were filled. The ramming was done in moderation, just suffi to settle the concrete and bring mortar to the surface. The average time tak mix a batch and fill molds was fifteen minutes.

The concrete cubes were kept in a damp condition until tested, by being oughly wet twice a day.

CEMENTS.

Tests on the cements used will be found below. These were tested not only with standard quartz, but with the concrete sand used.

	Natural cement (Round Top).	Portland cement (Atlas).
Retained on 100-mesh sieve	14 per cent	8.5 per cent.
Initial set, time	20 minutes	3 hours 10 minutes.
Hard set, time	36 minutes	5 hours 5 minutes.
Tensile strength (neat):		
1 day neat	96 pounds per square inch.	441 pounds per square inch.
7 days neat	180 pounds per square inch	839 pounds per square inch.
Tensile strength (quartz and sand):		
7 days (2 parts standard quartz)	91 pounds per square inch.	
7 days (3 parts standard quartz)		248 pounds per square inch.
7 days (2 parts concrete sand)	46 pounds per square inch.	
7 days (3 parts concrete sand)		256 pounds per square inch.
1 month (2 parts standard quartz)	188 pounds per square inch	
1 month (3 parts standard quartz)		429 pounds per square inch.
1 month (2 parts concrete sand)	103 pounds per square inch	
1 month (3 parts concrete sand)		401 pounds per square inch.
3 months (2 parts standard quartz)	327 pounds per square inch	
3 months (3 parts standard quartz)		398 pounds per square inch
3 months (2 parts concrete sand)	247 pounds per square inch	
3 months (3 parts concrete sand)		465 pounds per square inch.
6 months (2 parts standard quartz)	414 pounds per square inch	
6 months (3 parts standard quartz)		428 pounds per square inch.
6 months (2 parts concrete sand)	Lost	
6 months (3 parts concrete sand)		486 pounds per square inch.
1 year (2 parts standard quartz)	485 pounds per square inch	
1 year (3 parts standard quartz)		474 pounds per square inch.
1 year (2 parts concrete sand)	340 pounds per square inch	
1 year (3 parts concrete sand)		493 pounds per square inch.

From past experience the above tests show the samples of cement to be slightly below the average of their respective brands.

SANDS.

The concrete sand used was obtained from the District sand yard and is similar to that in use for concrete in the District. Its tensile strength, with the cements used, is given above under the cement tests.

One cubic foot, slightly damp, weighed 90 pounds.

On sifting it has the following mesh composition:

	Per cent.		Per cent.
Retained on—		Retained on—	
3-mesh per linear inch sieve	0	60-mesh per linear inch sieve	7
6-mesh per linear inch sieve	7.5	80-mesh per linear inch sieve	2
8-mesh per linear inch sieve	7.5	100-mesh per linear inch sieve	.5
10-mesh per linear inch sieve	13	Passed 100-mesh per linear inch sieve	.5
20-mesh per linear inch sieve	30	Void in loose sand	44.1
40-mesh per linear inch sieve	32		

Aggregates used in concretes (I use the word "aggregate" to designate the other ingredients in the concrete besides the mortar): The stone used in these concretes is a gneiss quarried from the south bank of the Potomac about 2 miles above the Aqueduct Bridge. The gravels used were clean quartz gravels, dredged from the river at the foot of Seventeenth street.

Concrete No. 1.—Composed of, by volume, 1 part natural cement (Round Top), 2 parts concrete sand, 6 parts crushed Potomac bluestone (concrete size), or, by weight, 1 part cement, 2.57 parts sand, 8.14 parts bluestone.

One cubic foot of the above stone weighed 96 pounds; per cent void, 45.3.

Weights used in making up 2 cubic feet of this concrete: 24 pounds cement, 62 pounds concrete sand, 195 pounds concrete stone. These weights gave just enough concrete for 2 cubic feet.

Concrete No. 2.—Composed of, by volume, 1 part natural cement (Round Top), 2 parts concrete sand, 3 parts crushed Potomac bluestone, 3 parts average gravel; or, by weight, 1 part cement, 2.57 parts sand, 4.07 parts stone, 4.80 parts gravel.

One cubic foot of above aggregate weighed 108 pounds; void, 35.5 per cent.

Weights used in making up 2 cubic feet of the concrete: 24 pounds cement, 6 pounds concrete sand, 97 pounds concrete stone, 114 pounds average gravel Filled 2 cubic feet, with 10 pounds eft over.

The concrete stone used to mix with this gravel was the same as in concrete No. 1.

Concrete No. 3.—Composed of, by volume, 1 part natural cement (Round Top), 2 parts concrete sand, 2 parts average gravel, 4 parts crushed Potomac bluestone; or, by weight, 1 part cement, 2.57 parts sand, 3.2 parts gravel, 5.43 parts stone.

The stone and gravel used as the aggregate in this concrete were the same as those used in concrete No. 2.

One cubic foot of above aggregate weighed 106 pounds; void, 37.8 per cent.

Weights used in mixing up sufficient for 2 cubic feet of concrete: 24 pounds cement, 62 pounds sand, 76 pounds average gravel, 130 pounds concrete stone. Filled 2 cubic feet with 1 or 2 pounds left over.

Concrete No. 4.—Composed of, by volume, 1 part natural cement (Round Top), 2 parts concrete sand, 6 parts of a mixture of three-fourths crushed Potomac bluestone (concrete size) and one-fourth granolithic from Potomac bluestone; or, by weight, 1 part cement, 2.57 parts sand, 6.75 parts stone, 2.25 parts granolithic.

One cubic foot of above aggregate weighed 105 pounds; void, 39.5 per cent.

Weights used in making up 2 cubic feet of the concrete: 24 pounds natural cement, 62 pounds sand, 162 pounds stone, 54 pounds granolithic. Made 2 cubic feet and 2 or 3 pounds over.

Concrete No. 5.—Composition of, by volume, 1 part natural cement (Round Top), 2 parts concrete sand, 6 parts of average and large gravel mixed one-half by one-half; or, by weight, 1 part cement, 2.57 parts sand, 9.8 parts mixed gravel.

One cubic foot above mixed gravel weighed 114 pounds; per cent void, 29.3.

Weights used in making up 2 cubic feet of this concrete: 24 pounds natural cement, 62 pounds sand, 116 pounds gravel, 116 pounds large gravel. These weights filled 2 cubic feet, with about 25 pounds left over.

Concrete No. 6—Composition, by volume, 1 part natural cement (Round Top) 2 parts concrete sand, 6 parts coarse concrete Potomac bluestone; or, by weight 1 part cement, 2.57 parts sand, 8.14 parts stone.

One cubic foot of above stone weighed 95 pounds; per cent void, 45.3.

Weights used in making up 2 cubic feet of this concrete: 24 pounds cement, 6 pounds concrete sand, 195 pounds stone. These weights gave just sufficient concrete to fill 2 cubic feet.

Concrete No. 7.—Composed of, by volume, 1 part Portland cement (Atlas), parts concrete sand, 6 parts crushed concrete bluestone (same as in concrete No. 1) or, by weight, 1 part cement, 1.75 parts sand, 5.53 parts stone.

Weights used in making up 2 cubic feet of concrete: 35 pounds cement, 6 pounds sand, 200 pounds stone. This made sufficient to fill 2 cubic feet with about 2 pounds over.

Concrete No. 8.—Composed of, by volume, 1 part (Atlas) Portland cement, parts concrete sand, 3 parts average gravel, 3 parts concrete bluestone (the gravel and stone same as used in concrete No. 2); or, by weight, 1 part cement, 1.75 parts sand, 3.26 parts gravel, 2.77 parts stone.

Weights used to make up 2 cubic feet concrete: 36 pounds cement, 63 pounds sand, 116 pounds gravel, 100 pounds stone, made 2 cubic feet with about 12 pounds left over.

Concrete No. 9.—Composed of, by volume, 1 part Portland cement (Atlas), parts concrete sand, 2 parts average gravel, 4 parts concrete bluestone (aggregate same as in concrete No. 3); or, by weight, 1 part cement, 1.75 parts sand, 3.17 parts gravel, 3.69 parts stone.

Weights used to make up 2 cubic feet of concrete: 36 pounds cement, 63 pounds sand, 79 pounds gravel, 133 pounds stone, made 2 cubic feet, with about 4 pounds left over.

Concrete No. 10.—Composed of, by volume, 1 part Portland cement (Atlas), parts concrete sand, 6 parts of a mixture of Potomac bluestone (concrete size and granolithic mixed, three-fourths to one-fourth, respectively; (aggregate same as in concrete No. 4); or, by weight, 1 part cement, 1.75 parts sand, 6.13 parts stone and granolithic.

Weights used in making up 2 cubic feet of this concrete: 36 pounds cement, pounds sand, 165 pounds concrete stone, 55 pounds granolithic. This filled 2 cubic feet, with about 5 pounds left over.

Concrete No. 11.—Composed of, by volume, 1 part Portland cement (Atlas), parts concrete sand, 3 parts average gravel, 3 parts large gravel (aggregate same as concrete No. 5); or, by weight, 1 part cement, 1.75 parts sand, 3.32 parts average gravel, 3.32 parts large gravel.

Weights used in making up 2 cubic feet of this concrete: 36 pounds cement, 63 pounds sand, 119 pounds average gravel, 119 pounds large gravel. This made 2 cubic feet, with about 25 pounds left over.

Concrete No. 12.—Composition, by volume, 1 part Portland cement (Atlas), 2 parts concrete sand, 6 parts coarse concrete Potomac bluestone (stone same as in concrete No. 6); or, by weight, 1 part cement, 1.75 parts concrete sand, 5.53 parts coarse stone.

Weights used to make up 2 cubic feet of this concrete: 36 pounds cement, 63 pounds sand, 200 pounds coarse stone. Just filled 2 cubic feet.

TABLE E.—*Mesh composition, weight per cubic feet, and per cent void of the different aggregates.*

Mesh composition of aggregates.	Concrete Nos. 1 and 7.	Concrete Nos. 2 and 8.		Concrete Nos. 3 and 9.		Concrete Nos. 4 and 10.	Concrete Nos. 5 and 11.	Concrete Nos. 6 and 12.
	Stone.	Stone.	Gravel	Stone.	Gravel	Stone.	Gravel	Stone.
Retained on—	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*
2½ inch mesh sieve	0	0	.....	0	.....	0	.....	3
2 inch mesh sieve	3	3	.....	3	.....	2.2	.....	16
1½ inch mesh sieve	17	17	.....	17	.....	13	0	56
1¼ inch mesh sieve	8	8	.....	8	.....	6	2.25	17
1 inch mesh sieve	10	10	0	10	0	7.5	8	8
¾ inch mesh sieve	12	12	1	12	1	9	8.75	0
½ inch mesh sieve	16	16	2	16	2	12	11.25	.....
2 mesh per linear inch sieve	19	19	12	19	12	14	22	.....
3 mesh per linear inch sieve	11	11	27	11	27	9	18	.....
6 mesh per linear inch sieve	3	3	42	3	42	18	21.5	.....
8 mesh per linear inch sieve	0.5	0.5	9	0.5	9	6	4.5	.....
10 mesh per linear inch sieve	0.5	0.5	4	0.5	4	1.6	2	.....
Passed through 10 mesh per linear inch sieve	Trace.	Trace.	3	Trace.	3	1	1.5	.....
Void in aggregate	45.3	35.5		37.8		39.5	29.3	45.7
Weight 1 cubic foot, aggregate, pounds	96	108		106		105	114	95

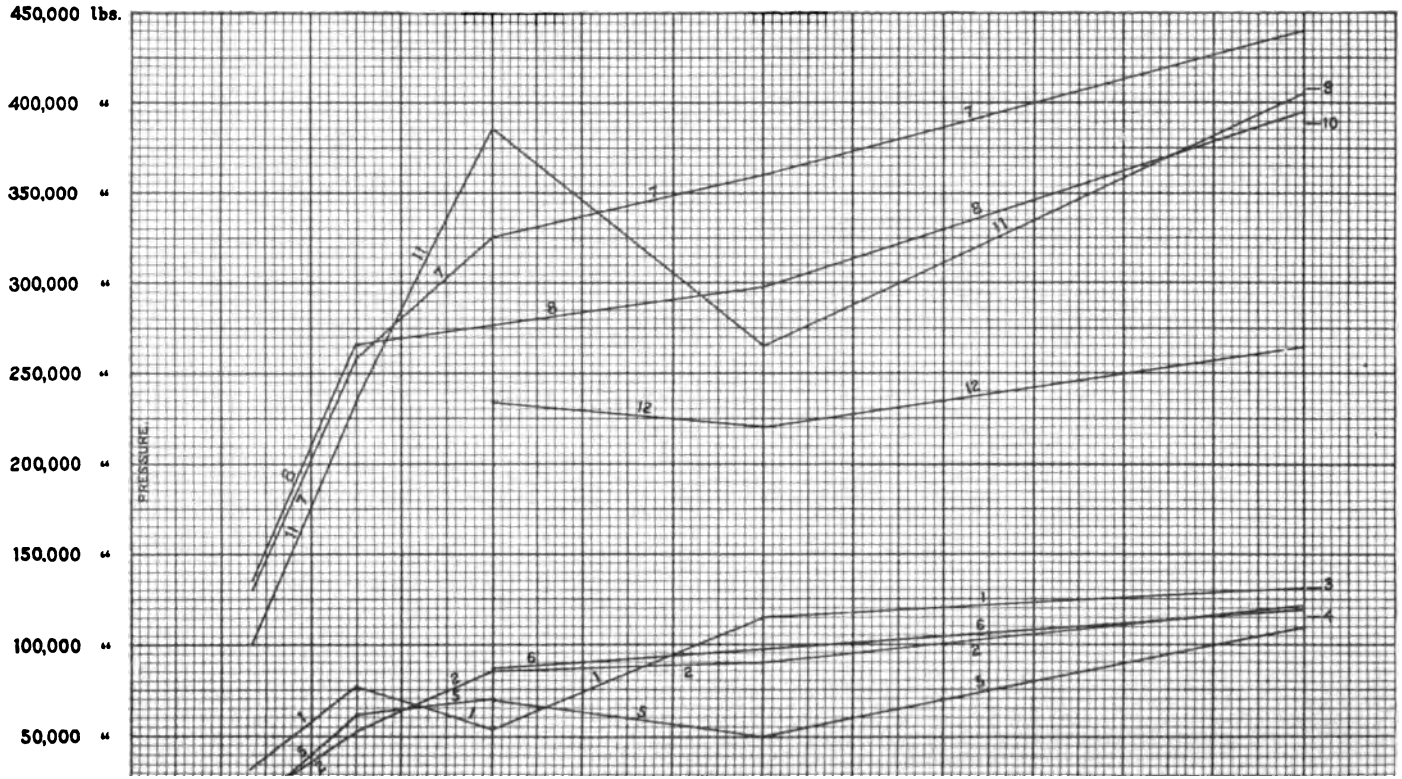
TABLE F.

Given in the following table will be found the proportion, by volume, of the different ingredients used in the several concretes, and calculations on volumes and void that are self-explanatory:

Concrete number.	Kind of cement used.	Proportion of constituents in concrete by volume.				Cubic feet of water used in mixing 1 cubic foot cement and 2 cubic feet sand into mortar.	Cubic feet of mortar obtained from 1 cubic foot cement and 2 cubic feet sand.	Ratio, by volume, of void in aggregate to mortar (void = 1).	Ratio, by volume, of void in stone to gravel used (void = 1).	Number of cubic feet of rammed concrete obtained from 1 cubic foot cement and 2 cubic feet sand, 6 cubic feet aggregate.	Number of cubic feet of rammed concrete obtained with 1 cubic foot stone.	Tensile strength of mortars mixed 1:2 with natural and 1:3 with Portland cements.		Ultimate crushing strength of concrete per cubic feet.	
		Cement.	Sand.	Gravel.	Stone.							7 days.	1 year.	10 days.	1 year.
												Lbs.	*Lbs.*	*Lbs.*	*Lbs.*
1	Natural (Round Top)*a*	1	2	.....	6	*b*.722	2.28	0.839	.....	5.91	0.985	46	340	22,900	131,700
2	.....do.*a*	1	2	3	3	*b*.722	2.28	1.070	2.21	6.12	2.040	46	340	15,500	121,100
3	.....do.*a*	1	2	2	4	*b*.722	2.28	1.006	1.10	5.95	1.487	46	340	.....	131,700
4	.....do.*a*	1	2	.....	6	*b*.722	2.28	.962	.....	5.98	.997	46	340	.....	115,200
5	.....do.*a*	1	2	6	.....	*b*.722	2.28	1.291	.....	6.33	.....	46	340	12,500	109,900
6	.....do.*a*	1	2	.....	6	*b*.722	2.28	.839	.....	5.91	.985	46	340	.....	119,300
7	Portland (Atlas)*c*	1	2	.....	6	*b*.544	2.27	.839	.....	5.91	.985	256	493	130,750	440,040
8	.....do.*c*	1	2	3	3	*b*.544	2.27	1.070	2.21	6.12	2.040	256	493	136,750	396,200
9	.....do.*c*	1	2	2	4	*b*.544	2.27	1.006	1.10	5.95	1.487	256	493	.....	408,300
10	.....do.*c*	1	2	.....	6	*b*.544	2.27	.962	.....	5.98	.997	256	493	.....	388,700
11	.....do.*c*	1	2	6	.....	*b*.544	2.27	1.291	.....	6.33	.....	256	493	99,900	406,700
12	.....do.*c*	1	2	.....	6	*b*.544	2.27	.839	.....	5.91	.985	256	493	.....	266,300

a Somewhat similar in composition to Louisville and Rosendale cements.
b This includes 4.4 per cent of moisture already in the sand.
c Of a similar composition to all high-grade Portland cement.

ULTIMATE STRENGTH OF CONCRETE—1-FOOT CUBES.



Proportions by weight given in these concretes were calculated from the weights per cubic foot of the various ingredients. The weights per cubic foot of the ingredients were determined as follows:

The measure, which was a box with an inside measurement of 1 cubic foot, was filled half full of material to be weighed and jolted four times, then filling it full, and after four more jolts it was struck off and weighed. In this method of measuring the cubic foot of material was not absolutely loose, nor was it by any means the most compact possible, but it gave me much more concordant results than weighing the material either loose or after shaking until it has reached its minimum volume.

The voids given are calculated from these measurements, the specific gravity of the stone being taken 2.8 and that of the gravel 2.6.

The crushing of cubes.—The crushing tests on the cubes were made under the supervision of I. H. Woolson, M. E., in charge of mechanical laboratory, School of Mines, Columbia University. The ten-day tests were made on a 150,000-pound Emery testing machine in the mechanical testing laboratory of the School of Mines; all other tests were made on a 600,000-pound hydraulic press at Watson & Stillman Hydraulic Press Works, New York City. The cubes were crushed parallel to the way they were packed into the mold. The ten-day cubes were crushed between sand beds. The crushing faces of all the other cubes were faced with plaster of paris twenty-four hours before testing. As the hydraulic press was known to be inaccurate, due to the friction between the piston and its packing, and that the error increases with the pressure, this error was determined by comparing hydraulic press with an Emery testing machine, as follows:

Ten blocks of yellow pine were cut from the same piece of timber. Six of the blocks were crushed on the Emery machine, with an average of 135,000 pounds, the highest being 137,000, the lowest 133,000 pounds. The other four blocks were crushed on the hydraulic press, giving an average of 140,000 pounds—maximum, 141,000; minimum, 138,000 pounds.

This shows the press to read 5,000 pounds too high at 135,000, or 3.7 per cent too high. Mr. Woolson, who has since made a very thorough and careful investigation on the friction of hydraulic presses, states that 8 per cent is a very fair maximum allowance to make on these tests. As these tests were made merely to compare the several concretes and not for the actual strength, the correction has not been made in the results given.

Below will be found a table giving the composition by volume and the average crushing strength in pounds of the cubes. The figures given for the crushing strength of all the concretes for ten days, forty-five days, three months, and six months are the average of the tests of two cubes each; those for the one year are the average of five cubes each.

TABLE G.

No.	Composition of concretes, by volume.	10 days.	45 days.	3 mos.	6 mos.	1 year.
	1 part natural cement, 2 parts sand—	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
1	6 parts average concrete stone	32,900	77,687	54,022	114,412	131,700
2	3 parts average concrete stone, 3 parts gravel	15,500	52,362	85,315	90,965	121,100
3	4 parts average concrete stone, 2 parts gravel					131,700
4	6 parts (¾ average concrete stone, ¼ granolithic)					115,200
5	6 parts average gravel	12,500	60,652	51,980	49,437	109,900
6	6 parts coarse concrete stone (no fine)			85,880		119,300
	1 part (Altas) Portland cement, 2 parts sand—					
7	6 parts average concrete stone	130,750	[a]343,520	324,875	361,000	440,040
8			172,325			
9	3 parts average concrete stone, 3 parts gravel	136,750	266,962		298,037	396,200
10	4 parts average concrete stone, 2 parts gravel					408,300
11	6 parts (¾ average concrete stone, ¼ granolithic)					388,700
12	6 parts average gravel	99,900	234,475	385,612	265,550	406,700
	6 parts coarse concrete stone (no fine)			234,475	220,350	286,300

[a] There being such a great difference in the crushing of the two cubes, I give the strength of each cube and not the average.

In examining the results of these tests it is evident, especially with the natu cement, that gravel makes a much weaker concrete at the start than stone. T was also strongly manifested in the handling of the cubes for the ten-day t greatest care was necessary to prevent the edges and corners being broken those cubes containing gravel, while the all-stone cubes were much more dural Disregarding the three and six months' tests, which appear unreliable, it is v evident that the strength of the gravel is rapidly gaining on the stone concr and will in time, I believe, pass it. From these tests, if we disregard the cost a are working for strength only it would seem that the kind of aggregate to should depend entirely on the class of work.

If the work is of such a character that the concrete will be subjected to as m strain during its first month as it will ever receive, the aggregate should be stone alone, when natural cement is used, and stone or stone and gravel wl Portland cement. Gravel alone should be used as an aggregate with natu cement in concrete only when its maximum strain will be received after a y In the case of Portland cement, however, gravel alone may be used in concr receiving its maximum strain after three months.

Supplemental test.—As there was a little material left after making up cubes for the above tests, I made 4 cubes of 1 part Portland cement, 2 parts sa 6 parts coarse gravel, by volume. The first two were made so wet that the wa ran from the concrete when tamped in the mold; the other two were made w just sufficient water to make a plastic mortar, such as was used in the forego concrete tests.

These cubes crushed at the end of the year as follows: Very wet concrete, 1, 331,749 pounds; No. 2, 359,897 pounds; average, 345,823 pounds. Medium concrete, No. 3, 361,908 pounds; No. 4, 437,305 pounds; average, 399,606 pound

Thinking that the above might be of interest,

Very respectfully,

A. W. Dow,
Inspector of Asphalt and Cement.

Capt. W. M. Black,
Corps of Engineers,
Engineer Commissioner of the District of Columbia.

It is to be hoped that further investigation may be carried on on concrete. investigations that I would suggest are: The values of different grades of sand concrete making and the proper materials and proportioning of material to g the most economical concrete for a given class of work.

The latter investigation would throw valuable light on some very pertin points not generally considered in choosing the class of concrete for different wo and I feel that the knowledge gained would more than repay the labor and expe entailed.

ASPHALT PAVING.

Crude Trinidad asphalt.—The Barber Asphalt Paving Company are the o importers of crude Trinidad asphalt in this city, the Cranford Paving Comp buying their asphalt cement from the former.

Thirteen samples, representing two cargoes, have been analyzed of this asph The average per cent bitumen soluble in carbon disulphide for the cargoes is per cent.

Petroleum residuum oils.—Fifteen residuums have been examined during past year for the several paving companies. They have been from the work the Standard Oil Company at Olean, N. Y., and have been of a fairly unifo quality. The method of examination is by ascertaining the flash point and not the physical properties. If they are at all abnormal the residuum is subjected a distillation at 400° F. for thirty hours, the per cent loss determined, and character of the residue noted.

Asphalt cements.—Penetrations of the asphalt cement used in each day's w have been taken with the results following:

	Cranford Paving Co.	Barb Paving
Average penetration at 77° F	77	
Highest penetration at 77° F	83	
Lowest penetration at 77° F	74	

Sand for asphalt surface.—The sand used in asphalt surface is made by mixing a down-river beach sand with the sand dredged from the river just north of the Long Bridge. When this mixture does not run fine enough, bluestone dust is added to make up the deficiency in fine material. The Barber Paving Company, not satisfied with the quantity of fine material derived from the mixed sands and bluestone dust, have added dust while the materials were being mixed on the platform.

The siftings of the sands extracted from the samples of asphalt surface mixture are as follows:

	Barber Paving Co.	Cranford Paving Co.
Retained on—	*Per cent.*	*Per cent.*
20-mesh per linear inch	2.50	3.50
40-mesh per linear inch	24.50	27
60-mesh per linear inch	31	32.50
80-mesh per linear inch	16	15
100-mesh per linear inch	11	10
Passed 100-mesh per linear inch	15	13

Asphalt surface mixture.—Samples of surface mixture taken to represent each day's work at resurfacing or new work have given on analysis the following results:

	Cranford Paving Co.	Barber Paving Co.
Number of samples	46	44
Average per cent bitumen	10.6	10.5
Lowest per cent bitumen	9.2	9
Highest per cent bitumen	12.6	12.7

Natural asphalts.—Several samples of new asphalts have been examined during the past year. But one is of sufficient interest to mention. This asphalt is mined at Tuxpan, Mexico. It is of such a consistency when found that it is ready for making into pavement without the addition of a flux. This is a great advantage over the other asphalts, all of which have to be fluxed before using. Its physical and chemical properties lead one to believe that it will rank among the best asphalts for paving.

Trinidad lake asphalt has been used exclusively in pavements laid in the District during the past year, the Barber Asphalt Paving Company having the contract for all new work, while the Cranford Paving Company did the repairing and resurface work, under their five years' contract for repairing concrete pavements.

The Barber company have evinced during the past year a desire to lay as good a pavement as was in their power, irrespective of cost. They have improved their asphalt cement by substituting for a portion of residuum oil used an artificial asphalt, so to speak, which imparts to the asphalt cement the property of being less susceptible to changes of atmospheric temperature than when residuum oil alone is used. This artificial cement, or Pittsburg flux, as it is commercially called, was partly described in a former report. It is manufactured by heating petroleum residuum with sulphur. The sulphur combines with portions of the hydrogen of the petroleum and escapes as hydrogen-sulphide gas, leaving the product as a residue.

They have also used a sand in their surface mixture that is much finer than is called for in the specifications, which is an advantage for various reasons already discussed in former reports.

I intend during the coming year to recommend that the paving companies lay a pavement with a slightly softer asphalt cement. This will make the pavements less liable to cracking in cold weather, while they will still be sufficiently hard for summer.

WATER ANALYSIS.

A total of 69 analyses have been made for the water department during the past year, 45 being on water from deep wells and 19 from the old shallow wells. Two deep wells were abandoned because good water could not be obtained, and 1 is suspicious. The others make a very good showing.

The analyses of the 22 deep wells that have been sunk in the District during past two years will be found below.

TABLE H.

[The total solids on evaporation were not determined in these wells, as the samples were t immediately after being drilled.]

Location.	Depth.	Results in parts per million.					
		Nitrogen as—				Oxygen consumed.	Chlo
		Free ammonia.	Albuminoid ammonia.	Nitrites.	Nitrates.		
	Feet.						
First and G streets NW.	148	.003	.001	Trace.	None.	0.6	
Sixth and B streets NW. *a*	140	.002	.004	None.	None.	.....	
Sixth and O streets NW.	192	.008	.005	Trace.	Trace.	.....	
M street, between Fourth and Fifth streets NW.	150	.006	.005	Trace.	None.	.....	
Seventh and M streets NW.	151	.002	.003	None.	None.	.....	
Twelfth and M streets NW.	149	.005	.002	None.	None.	.....	
Eighth street and Florida avenue NW. *b*	108	.042	.018	.011	2	3.4	
Eighth and Savannah streets NW.	193	.002	.003	None.	Trace.	1.2	
Twentieth street and Pennsylvania avenue NW.	203	.008	.004	None.	Trace.	1.8	
Third and H streets NE.	155	.001	.002	Trace.	None.	.4	
Twelfth and K streets NE.	186	.002	.003	Trace.	None.	.....	
New York avenue extended NE.	175	None.	None.	None.	None.	.....	
Eleventh and East Capitol streets NE.	181	.004	.006	None.	2	3.1	
Half and T streets SW.	207	.008	.004	None.	Trace.	.5	
Second street and Virginia avenue SW.	146	.008	.008	None.	None.	.....	
Third and D streets SW.	96	.010	.020	None.	None.	.....	
Fourteenth and D streets SW. *c*	247	1.+	1.+	.002	.006	Very high.	
Second street and North Carolina avenue SE.	232	.007	.004	None.	21	.....	
Third and M streets SE.	223	.008	.005	Trace.	6	.....	
Tenth street and South Carolina avenue SE.	147	.003	.002	None.	None.	.....	
Fourteenth and C streets SE.	149	.006	.005	None.	None.	.....	
Stanton and Elven avenues	185	.005	.003	Trace.	None.	0.7	

a Suspicious. *b* Bad. *c* Bad; abandoned.

The 24 waters from shallow wells were sent in on complaints of wells; 7 w bad and 4 suspicious. It is much to be regretted that the force of this departm is too small to permit of a more extended examination of the shallow wells. S wells are a great source of danger for causing and transmitting diseases, an they are to be kept in use in the city several examinations of each should be m every year. These examinations need not be complete, but just sufficient to sl any marked change in the analysis of the water.

Very respectfully,

A. W. DOW,
Inspector of Asphalt and Cement

The ENGINEER COMMISSIONER OF THE DISTRICT OF COLUMBIA.
(Through Capt. Lansing H. Beach.)

SPECIFICATIONS FOR ASPHALTIC MIXTURES AND TESTS FOR SAME.

By A. W. DOW, *Washington, D. C.*

The request is frequently made for a knowledge of the methods by whicl asphalt suitable for street paving may be distinguished and for a practical se specifications for an asphalt mixture. Little has been written and but litt known; but the enormous increase in paving streets with asphalt throughout country in the last five years has made the subject one of general interest. In effort to throw a little light on this subject I am hampered by the thought t practically everything is in the crude state of a beginning and that no stands have as yet been fixed for tests.

As there is at present some confusion as to the meaning of certain terms used in this article I feel it advisable to define their meaning as employed here.

Bitumen.—Any and all hydrocarbons, whether natural or artificial, soluble in carbon disulphide.

Asphaltum.—A natural bitumen, all or a portion of which is insoluble in petroleum naphtha, and in most cases found associated with various mineral and organic substances.

Asphalt.—Any and all natural deposits containing asphaltum.

Asphalt cement.—An asphalt or allied substance softened by some softening agent, or an asphalt of the proper consistency for use in paving. It may be more or less pure.

A properly constructed pavement should be composed of the three parts, base, binder, and wearing surface.

Base.—As in all pavements, the base should be given the closest attention. It is false economy to try to save on the base. It is well in the constructing of a pavement to consider that the base is the true pavement, and there is no reason why it should ever be reconstructed. The wearing surface is intened to take the wear and tear of traffic, and can be replaced on the same base times innumerable. It should be made of concrete of at least 6 inches in depth, on a well compacted bed, unless it should be desirable to lay a wearing surface on an old stone or macadam pavement. It is not, however, advisable to remove a stone pavement, lower the grade, replace the stones, and then lay on the wearing surface, as it is impracticable to relay the stone pavement with sufficient care to prevent parts of it from compacting more than others, which will in time produce depressions in the wearing surface.

Binder.—As the surface of the base is comparatively smooth and of such a character that the wearing surface would have no bond with it, it is found necessary to use what is called binder. This binder, as the name implies, is intended to bind the surface coat to the base, thus preventing it from shoving under traffic in warm weather while in a soft condition. It should be composed of angularly broken stone of varying sizes, mixed with soft asphalt cement.

Wearing surface—It should be composed of a sharp-grained sand containing some dust, and an asphaltic bitumen. Too little importance in the past has been paid to the selection of sand and dust for asphaltic mixtures, and many failures have resulted therefrom which were considered due to other causes. I would not be far from right in saying that it is possible by varying the grade of sand and the quantity of dust to produce any character of pavement desired, without changing the bitumen. Indeed, the sand and dust are of as much importance in the making of a good pavement as the asphalt. In selecting a sand certain rules should be observed. It should be moderately fine, the grains varying in size from coarse to fine, the fine predominating. A good sand on sifting should give proportions somewhat similar to these:

	Per cent.		Per cent.
Retained on—		Retained on—	
10-mesh per inch sieve	0	80-mesh per inch sieve	10
20-mesh per inch sieve	12	100-mesh per inch sieve	18
40-mesh per inch sieve	25	Passing through 100-mesh per inch sieve	15
60-mesh per inch sieve	20		

All the grains retained on a 60-mesh sieve must be hard, as it is desirable that they resist being crushed by traffic. This is very important, and a number of pavements have failed for no other reason than that the coarse grains were crushed, producing numerous small grains that were uncoated by bitumen. A proper grading of the sand from coarse to fine, with considerable fine, is desirable, as it permits the use of more and a softer bitumen. To understand the desirability of this it is well to remember that all bitumens harden by the fall of temperature, and that at some low degree they tend to be more or less brittle. If, now, so fine a sand be employed that the bitumen used may be so soft that the degree of temperature at which it would become brittle is below the minimum of atmospheric temperature, we can prevent our pavement from becoming brittle.

A round-grained sand is to be avoided, as it produces a much softer mixture than an angularly grained sand would, though the same bitumen be used with both. It is but seldom that a properly graded sand is found, and especially one containing the requisite quantity of fine grains. To overcome this difficulty, two or even more sands are often mixed, and more often some suitable dust is mixed

with it. This dust should be any inorganic substance unaffected by water. In the selection of a sand for a mixture the earthy matter of the asphalt cement must be considered as a part of the sand.

Bitumen.—Bitumen may be derived from various sources, as a suitable mixture of hard and soft asphalt; a hard asphalt, with an asphaltic oil; from an asphalt found naturally to contain a bitumen of proper consistency, or a hard asphalt softened with an artificial product. As there are practically no artificial bitumens used alone in street paving, I will only deal with those derived from natural origin, and of mixtures of natural and artificial products.

The necessary characteristics for a bitumen to possess are adhesiveness, cohesiveness, and elasticity to a certain degree. It must not show too rapid a change with aging; must be practically unaffected by water or dilute ammonia, and have a proper degree of consistency or softness. Its consistency should not be greatly altered by changes in temperature; and, lastly, a certain degree of stability upon being kept at a high temperature for a length of time.

If in the examination of an asphalt or like substance to determine its suitability for paving one finds that the bitumen contains the above properties, it will be safe to say that it will make a good pavement if properly manipulated.

METHODS EMPLOYED IN THE EXAMINATION OF ASPHALT CEMENT.

Determination of per cent bitumen, foreign organic and inorganic residue.—The per cent bitumen in a substance is determined by extracting it with a solvent generally carbon disulphide. This extraction may be made in numerous ways. The method that I have found to give the least trouble and require the least experience is by extracting in large test tubes or cylinders, decanting off the solvent containing the dissolved bitumen from the insoluble portions.

The method of procedure is as follows: The asphalt, or like substance, is spread in a thin layer, in a suitable dish (nickel or iron will do), and kept at a temperature of 225° F. until it practically stops losing in weight. The greater part, and in some cases all the water and some light oils are expelled in this way. From 2 to 10 grams (depending on its richness in bitumen) of this substance is weighed in a large sized test tube (8 inches long by 1 inch diameter), the tare of which has been previously ascertained. The tube containing the substance is then filled to within 1½ inches of the top with carbon disulphide and allowed to stand for a few minutes. Then the tube is tightly corked with a good sound cork. It is then shaken vigorously until no asphalt can be seen adhering to the bottom. Care should be taken while shaking to keep one finger on the cork to prevent its being blown out. The tube should then be put away in an upright position and not disturbed in the slightest way for two days, after which the carbon disulphide is decanted off into a small bottle. As much of the solvent should be poured off as is possible without losing any of the residue. The tube is again filled and shaken as before, and put away for two more days. After the liquid has been carefully decanted the second time, the tube, with the residue, is dried at a low temperature, and then 225° F. After cooling it is weighed. As there is always a small portion of the residue poured off in the solution with the bitumen, this solution must be evaporated and the bitumen burned off in a platinum dish and the weight of the residue added to that in the tube. The weight of the substance taken, less the sum of these two weights, is the weight of the bitumen extracted, from which can be calculated the per cent bitumen.

The determination of the organic matter, not bitumen, or, as it is often called the foreign organic matter, is made by burning, in a tared platinum crucible, the residue left in the tube after extracting the bitumen, 100 per cent, less the sum of the foreign organic matter, and bitumen per cent is the organic matter.

The softness or consistency of a bitumen or asphalt cement is determined by an apparatus devised by Professor Bowen, which is generally spoken of as a penetration machine. This piece of apparatus has been described several times in print and is patented, so I will not enter into any details as to its construction. This determination is made by ascertaining the distance, registered in degrees on a dial, that a needle will penetrate into a bitumen in a fixed time and under a fixed weight. The penetration of a sample is taken by lowering the needle until it is just in contact with the surface. A clamp is then released, which allows the needle to penetrate into the sample for any fixed time (one second being the time generally allowed). At the end of this time the clamp is closed and the degree of penetration noted from the dial. All samples must be kept at a standard temperature for at least half an hour before making the test. This is most accurately done by keeping the machine and samples in a small room kept at the standard temperature.

Susceptibility to change in temperature.—This is determined by taking the penetration of the substance at several different degrees of temperature and noting its variation caused by the rise or fall.

Change due to age.—All bitumens undergo a more or less rapid change with aging, that appears to be due to two or possibly more causes. Two distinct changes manifest themselves. One is the surface hardening, which is likely due to indirect oxidation, and possibly to the volatilization of light oils. It begins at the surface and gradually extends into the bitumen. The other is a hardening of the entire mass, evidently due to polymerization. Both these changes take place in all bitumens, but one or the other may predominate. The former is much the less objectionable, as it makes but slow progress into the mass. It is preferable that this test be made on the asphalt cement, as there is some danger in using extracted bitumen of the solvent not having been entirely removed, and its slow evaporation might be interpreted as a true change, due to the hardening of the bitumen.

This test is made as follows: The penetration of the sample is determined, after which it is put away for a week, when it is again ascertained. If the sample has been found to have appreciably hardened, a slanting cut is made into it with a keen, sharp knife, laying over the upper piece, thus exposing a gradual descent from the surface into the interior of the cement. Penetrations are now taken down the side of this cut, beginning at the surface. In this way the increase in hardness of the surface and the interior over its original consistency is determined; also, the hardening of the surface over the interior and the depth that the surface hardening has entered the sample.

It is well to continue this test for as long a period as possible, making examinations at intervals of every few weeks.

Its stability upon being kept at a high temperature for a length of time.—The necessity of this stability is owing to the length of time the bitumen must remain in a heated condition during the course of the manufacture of the asphalt mixture, which may cause it to lose valuable properties. The effect of this heat is rendered much more severe on the bitumen because of its great area exposed to evaporation when mixed with sand.

The lack of stability resulting from the loss of light oils is manifest in different ways in different bitumens. Although generally so, it does not of necessity follow that the bitumen losing the most oil undergoes the greatest change in consistency. There are two methods of determining this, and it is advisable to use both. The first consists in making the asphalt cement into a mixture with standard sand. This is done by mixing sand and the asphalt cement in such proportions that the mixture will contain 10 per cent of bitumen. This is done by keeping in a hot oven for fifteen minutes at 300° F. and then incorporating by stirring the sand and asphalt. One portion of this mixture is then put aside to cool, while the other is kept at the temperature of 300° F. for one-half hour longer. The bitumen is then extracted from both, and after having arrived at the same temperature their penetrations are compared.

The second method consists in keeping a quantity of the substance, equivalent to 20 grams of bitumen, at the temperature of 400° F. for thirty hours. The method of procedure is as follows: The substance is weighed in a short-necked, tubulated, 2-ounce retort, the tare of which has been previously taken. The retort is then hung in a copper cylinder so that the neck just protrudes. The copper cylinder is then jacketed with asbestus and provided with a thermometer. After being heated up to 400° F., at which temperature it is kept for thirty hours, the retort is allowed to cool, then weighed, and the per cent of loss ascertained. The retort is then broken open and the character of its contents compared with that of the original substance.

The action of water and dilute ammonia on an asphalt mixture is determined by molding an inch cube of the mixture under a pressure of 1,000 pounds. The cube is broken in two, one portion being placed in water or dilute ammonia, while the other portion is kept in air. The two pieces are compared from time to time. If it be acted upon by the liquid, the corners will be found to give away readily with a slight pressure of the finger. After soaking some time, it is well to evaporate the liquid to dryness and note if any bituminous residue remains.

Adhesiveness, cohesiveness, and elasticity.—No method has as yet proved satisfactory for the determination of these other than the sense of feeling along with experience.

Extraction of bitumen for the purpose of examination.—The method which I employ (extraction by subsidation) is the same as employed for determination of the per cent of bitumen, only on a larger scale, and no accurate weighings are

necessary. Any method is applicable that will extract all the bitumen in a reasonably pure state. Sufficient of the material to give 20 grams of pure bitumen is put in a large glass cylinder, and extracted with carbon disulphide, as before described. The solvent containing the bitumen is evaporated off in a clean metal dish at a low temperature until it is quite free from the solvent. It is then heated cautiously to 300° F., at which temperature it is kept for ten minutes. This is necessary, as the last trace of solvent is very hard to remove.

As in the examination of all materials to fill certain purposes, some standard must be fixed. In the case of bitumens the knowledge is too limited and the methods too incomplete to fix numerical standards for the various tests; so it is necessary to establish for a standard the bitumen of some well-known asphalt cement. The bitumen generally taken as a standard is that of an asphalt cement composed of the best quality of Trinidad asphalt softened with petroleum residuum.

In the examination of asphalts or like products, to determine their suitability for paving, it is necessary that both the hard and softening material be examined, unless the asphalt be already of the right consistency. My method of procedure is as follows:

The materials are mixed together by heating in such proportions as would give a cement of the proper consistency, which is determined by its penetration. All tests are then made on this cement, or the bitumen extracted from it, except where the softening agent employed is injurious, when it must be examined and its quantity limited. I refer here especially to petroleum residuum, which is used for softening asphalts. I have made a careful study of this and am thoroughly convinced that the use of all petroleum residuum is injurious, some much more so than others. That it is not adaptable, either chemically or physically, to this use, can be readily seen by looking into its properties. With a change of but a few degrees of temperature it passes from a liquid to a solid state. On standing a month or two a hardening sets in, due either to polymerization or slow crystallization, which makes it even more susceptible to change in temperature. I am also led to believe, from various experiments, that many asphalts are not entirely soluble in petroleum residuum, and for that reason asphalt cement in which it is used is not a chemical, but merely a mechanical mixture or emulsion of the asphalt and the oil. From this it can readily be seen that the undesirable properties of the petroleum residuum are imparted to the asphalt cement to a degree proportional to the quantity of residuum used.

I have found that the best petroleum residuums comply with the following tests:

Specific gravity ranging between 20° and 23° Baumé.

The flash point (as taken in a New York State board of health oil tester, between 300° and 425° F.

On keeping at a temperature of 400° F. for thirty hours, as described in the tests on bitumen, it must lose between 2 and 6 per cent of oil. The residue in the retort should be fluid at 75° F., and on cooling should not show a coarse crystallization. The quantity of residuum necessary to soften the asphalt into a cement containing bitumen whose penetration is 80° (District of Columbia standard) should not be over 33 per cent of the total quantity of bitumen in the asphalt.

It must show only the slightest signs of having been cracked in the course of manufacture. An oil that has been cracked reveals on being examined through the microscope numerous black particles floating through it. The particles are insoluble in petroleum naphtha, but are soluble in carbon disulphide and resemble asphaltine.

In the specifications that I now present in this article I have tried to cover all excepting the limestone-rock asphalts, which are mostly foreign, and are objectionable on account of the poor foothold they afford to horses.

SPECIFICATIONS FOR ASPHALT WEARING SURFACE.

The wearing surface shall be made of an asphalt mixture complying with the following specifications:

The materials that shall be used therefor are:

1. Asphalt cement.
2. Sharp sand.
3. Fine mineral dust.

Asphalt cement.—The asphalt cement must not be inferior in quality to a cement made of the best quality Trinidad asphalt and petroleum residuum. This bitumen must comply with the following requirements: It shall be adhesive, cohesive, and elastic to a certain degree. It must not show too rapid a change with aging. It must be practically unaffected by water or dilute ammonia. Its penetration must

be within the range of 50° to 120° (District of Columbia standard). The penetration must be governed by the traffic, the range of atmospheric temperature, the susceptibility of the bitumen to change in temperature, and the character of the sand. Its consistency should not be greatly altered by a change in temperature. Its loss on being kept at 400° F. for thirty hours must be less than 8 per cent and its character must be so changed that its penetration is reduced to more than one-fourth of its original.

If petroleum residuum has been used as the softening agent, it must comply with the following requirements:

Specific gravity ranging between 20° and 23° Baumé.

The flash point (as taken in a New York State board of health oil tester) between 300° and 425° F.

On keeping at a temperature of 400° F. for thirty hours it must lose between 1½ and 5 per cent of oil. The residue in the retort shall be fluid at 75° F., and on cooling should not show a coarse crystallization. The quantity of residuum necessary to soften the asphalt into a cement containing bitumen whose penetration is 80° (District of Columbia standard) should not be over 33 per cent of the total quantity of bitumen in the asphalt.

Sand.—The sand shall be hard-grained and sharp. On sifting, it should have at least 15 per cent of material that would be caught on a 40-mesh per inch sieve, 25 per cent of material that will pass an 80-mesh per inch sieve, 10 per cent of which at least will pass a 100-mesh per inch sieve. If the sand to be used does not contain the desired fine material, any mineral dust unaffected by water may be used to make up the desired deficiency.

The proportions of materials used will depend upon their character and the traffic of the street, but the percentage of bitumen soluble in carbon disulphide shall not exceed the limit of 9 to 13 per cent.

In some of the methods of examination I have merely stated the processes that I have found preferable with the apparatus at my disposal. I am in hopes that this paper will call forth criticisms which will lead to discussion, and so bring forth the methods and ideas of others.

REPORT OF SUPERINTENDENT OF PROPERTY.

WASHINGTON, *September 20, 1897.*

SIR: I have the honor to submit the following report of the operations of this office for the fiscal year ending June 30, 1897:

The accompanying table (A) shows in detail the expenditures for construction materials from appropriations for the year. To this it may be proper to add the following remarks:

The greater part of curbing furnished was cut from an excellent quality of Maine granite. Two classes, the 6 by 20 inch and the 8 by 8 inch were used. The former is set in a trench, about 6 inches of its face being exposed. The latter class is embedded in concrete, and its use has generally been confined to streets improved with monolithic pavements. The specifications for the two classes are practically the same, requiring a fine grade of pean-hammered work with closely fitting joints. All curbing is beveled one-fourth inch. The prices paid were 65 and 64½ cents for the 6 by 20 inch, and 52½ and 51½ cents per foot for the 8 by 8 inch. The ruling prices for the preceding year were 74⅝ and 67½ cents, respectively. Circular curbing cost 82 and 67½ cents per foot, as against $1.08 and 85 cents paid during 1895–96.

The District also purchased 519 feet of 6 by 20 inch and 1,768 feet of 8 by 8 inch Georgia curbing, at 58½ and 49 cents per foot, respectively. While this stone is of a somewhat inferior quality, it is believed to be suitable for curbing purposes, and, as it is a keen competitor for this market, its use seems advisable. No granite blocks were purchased during the year.

Vitrified paving blocks were supplied by three different contractors at $20.85, $21.75, and $20 per M. These prices may be reduced to 89½, 92½, and 95 cents per square yard, respectively. The samples submitted with the proposal of one company were manifestly very poor. They represented, however, that they could and would furnish blocks equal to a standard to be determined by the Commissioners. The standing of this company being well known to the Commissioners, a contract was accordingly awarded and properly completed. Another contractor experienced much trouble in supplying blocks similar to specimens submitted with bid. A new standard was adopted, under which deliveries are now being prosecuted.

The division of contracts between two or more dealers seems advantageous to the District, as each contractor is careful that his product is not surpassed by that of the others.

The samples submitted with bids were not subjected to any series of tests. It was formerly the practice to immerse, grind, and tumble all such samples, but the foundry rattler used in determining the abrasion is no longer available, nor is there another in this city. These tests were found to be unreliable. Bricks of different species differ largely in results and some arbitrary rating seems necessary to cover such differences. Moreover, some bidders undoubtedly select specimens with a view to high results, which could not obtain with the run of bricks supplied under contracts. Again, it is not practicable to submit bricks as delivered to these elaborate tests. It therefore seems that the eye and ear of the inspector are the only practicable criteria. The inspector should, however, thoroughly familiarize himself with the material to be inspected, and the best, if not the only satisfactory way to do this, is by a close examination of similar brick in actual use.

Seventy thousand sidewalk paving bricks were purchased of the Frederick Brick Works at $8.90, delivered in the District of Columbia property yard. The cost of hauling to work is about $1.25 per M. All other sidewalk bricks were purchased under contracts with local dealers, the prices being $8 and $9 for bricks delivered within city limits, with increased charges for longer hauls. Nine dollars and fifty cents for (Frederick) bricks delivered in the District of Columbia property yard was the contract price during the preceding year. Red sewer bricks were supplied at the works of a local contractor at $5.90 per M, and were hauled to the work in District teams.

Asphalt paving blocks used in alley pavements cost $55 M, $8 less than was paid during 1895–96. These blocks were of local manufacture. The large reduction in price is likely due to the competition of the vitrified paving blocks. The area of alleys improved during the year was about evenly divided between these two materials.

Vitrified sewer invert bricks were purchased for $15.50 per M, the ruling price during the preceding year being $15. The increase in size, however, more than offset the additional cost. These bricks, which are really selected pavers, are purchased by the District, and supplied to sewer contractors at prices recited in their contracts.

The vitrified sewer invert blocks supplied during the year were of local manufacture and cost 39½ cents per linear foot. During 1895–96 Ohio River fire-clay blocks were purchased at 50 cents per foot.

The annual contract for supplying terra-cotta sewer pipe and branches was awarded to the lowest bidders, tied items going to local manufacturers. The only successful out-of-town bidders, Robinson Bros. & Co., of Akron, Ohio, declined to execute contract for the sizes awarded them (21 and 10 inch pipe and branches), claiming that they should have received a proportionate award of tied items. The local bidders then agreed to furnish the pipe in question at the prices bid by Robinson Bros. & Co., and contracts were let accordingly. All pipe supplied was therefore of local make. The prices were 24-inch, 49 and 50 cents; 21-inch, 35 cents; 18-inch, 25½ and 26 cents; 15-inch, 18¾ and 19 cents; 12-inch, 12¾ and 13 cents; 10-inch, 10 cents; 8-inch, 7 cents; 6-inch, 4½ and 5 cents; 24 by 6 inch branches, $2.20; 21 by 6 inch branches, $1.57; 18 by 6 inch branches, $1.15; 15 by 6 inch branches, 85 cents; 12 by 6 inch branches, 58 cents; 10 by 6 inch branches, 45 cents; 8 by 6 inch branches, 30 cents; 6-inch bends, 15 cents. These prices range from 30 to 40 per cent lower than those of the preceding year. Sewer pipe has never been subjected to any tests.

The contract for furnishing natural hydraulic cement was awarded to the Lawrenceville Cement Company, these contractors being the first in many years to regularly supply rosendale cement for use in the construction of District sewers. A quantity of Cumberland, Cumberland and Potomac, and Roundtop cements were furnished under this contract. The price was 71 cents per barrel delivered at the District of Columbia warehouse in canvas sacks. No barreled cement was purchased. The 1895–96 price was 73½ cents for the same class of deliveries.

Portland cement was supplied by James H. McGill, at $2.09 per barrel. His contract as originally made provided for the furnishing of Hanover (German) or Brooks, Shoobridge & Co. (English) brands, in the option of the District. An amendment to this contract included Atlas (American) cement. Mr. McGill claimed that this amendment transferred the option to him. His claim was not admitted, and cement was furnished as ordered.

Castings were purchased of local contractors, at $1.40 per 100 pounds, 3.8 cents less than the 1895–96 price. Wrought-iron manhole steps cost 9⅛ cents each.

The sand used for paving and concreting was dredged from Occoquan Creek,

and cost 45 cents per cubic yard, 1 cent more than was paid during the preceding year. This is the best sand that reaches this market, but, unfortunately, the beds show some signs of exhaustion. Screened sand used for brickwork came from various points on the Lower Potomac and cost 63 and 65 cents; 60 cents was the 1895-96 price. Screened pebbles were dredged from the Virginia side of the Potomac opposite Washington and cost 59 cents, 5 cents more than was paid during the preceding year.

Building stone came from the quarries on the Upper Potomac, the average cost being $1.75 per perch.

Four 8-inch Miller siphons were purchased at a cost of $28 each, f. o. b., Chicago. The freight amounted to $6.90.

The pitch furnished during the year was of domestic make, and cost 7¼ cents per gallon.

The various lighting supplies were purchased under contracts prepared by the lighting division, this office simply assuming the custody of the goods and the settlement of the accounts.

A new floor was laid in the western half of the larger cement house, at a cost of $394. The yard adjoining this house was inclosed by a dressed white pine fence, the expense being $85.86.

A recent order of the Commissioners has charged this office with the purchase of all supplies used in the engineer department. Some changes have been made in the manner of keeping records, but as this charge is of such recent date comment as to its advantage would seem premature.

Table B, forwarded herewith, shows in detail payments to employees (other than two inspectors of property on annual roll; also one messenger part of year).

Respectfully submitted.

L. T. BOISEAU,
Superintendent of Property.

The ENGINEER COMMISSIONER, DISTRICT OF COLUMBIA.
(Through Capt. Lansing H. Beach, U. S. A., Assistant.)

TABLE A.—*Showing construction materials purchased from appropriations for 1896-97.*

Appropriation.	Granite curbing.		Asphalt block.		Asphalt tiles.		Vitrified paving block.	
	Feet.	Cost.	Number.	Cost.	Number.	Cost.	Number.	Cost.
Improvements and repairs	25,055.77	$14,646.41	32	$1.76			282,539	$5,598.41
Assessment and permit work	29,596.83	17,796.62	319,285	17,612.63	410	21.52	855,340	17,647.49
Constructing county roads	4,223.57	2,561.28						
Current repairs, streets, avenues, and alleys	130.97	107.40	2,350	145.25			61,596	1,312.27
Repairs to concrete pavements	349.10	215.92					165,485	3,486.10
Replacing sidewalks and curbs around public reservations	715.31	383.79						
Replacing obstructed sewers			100	5.50				
Pumping expenses and pipe distribution			381	20.96				
Extension of high service system	20	10.50					8,700	189.23
Repairs to market house			2,545	139.97				
Fire department	174.23	101.19	18,500	1,049.38			150	3.26
Deposits, etc	38	31.16					1,550	33.71
Total	60,305.78	35,886.27	343,193	18,975.45	410	21.52	1,355,360	28,270.47

TABLE A.—*Showing construction materials purchased from appropriations for 1896–97*—Continued.

Appropriation.	Vitrified paving brick.		Vitrified sewer brick.		Iron pipe.		Pitch.	
	Number.	Cost.	Number.	Cost.	Feet.	Cost.	Gallons.	Cost.
Improvements and repairs					a 78	$15.62		
Assessment and permit work					b 392	89.66		
Constructing county roads							550	$55.00
Current repairs, streets, avenues, and alleys	15,068	$218.49					1,930	144.75
Bridges						435.34	200	14.00
Main and pipe sewers			88,251	$1,367.88			125	9.37
Suburban sewers			100,000	1,550.00				
Replacing obstructed sewers							100	7.50
Cleaning and repairing sewers and basins			50,000	775.00	23	13.88	50	3.75
Rock Creek and B street intercepting sewers c			187,951	2,888.25				
F street and Easbys Point sewer a			78,880	1,222.64				
Brookland sewer c			281,986	4,308.78				
Eckington sewer c			100,607	1,559.41				
Kenesaw avenue sewer c			40,220	604.05				
Pumping expenses and pipe distribution							1,540	115.50
Fire department	2,900	45.24						
Deposits, etc	2,549	39.77			14	3.89	3,440	252.99
Total	20,517	303.50	927,895	14,271.01	507	558.39	7,935	602.86

Appropriation.	Iron beams.		Lead pipe.		Building stone.		Invert block.	
	Feet.	Cost.	Pounds.	Cost.	Cubic yards.	Cost.	Feet.	Cost.
Assessment and permit work					37¼	$28.19		
Constructing county roads					502	878.50		
Main and pipe sewers					5	9.50	1,855½	$732.92
Suburban sewers							2,646	1,026.90
Cleaning and repairing sewers and basins							115½	45.62
Automatic flushing tanks			73	$9.43				
Rock Creek and B street intercepting sewer c	176	$500.23			27½	47.70	150	59.25
Brookland sewer c							3,423	1,352.09
Eckington sewer c							255	127.50
Kenesaw avenue sewer c							2,242½	1,097.05
Total	176	500.23	73	9.43	571½	963.89	10,687½	4,441.35

Appropriation.	Red paving bricks.		Red sewer brick.		Sewer pipe.		Portland cement.	
	Number.	Cost.	Number.	Cost.	Feet.	Cost.	Barrels.	Cost.
Improvements and repairs			27,300	$161.07	234	$27.81	10½	$21.94
Assessment and permit work	913,934	$7,661.06	254,430	1,499.57	32,638	4,964.39	680½	1,421.90
Constructing county roads	26,500	251.75	4,750	28.03	1,746	232.98	32½	67.92
Current repairs, streets, avenues, and alleys	617	4.94	1,400	8.26	15	1.95	103½	216.84
Repairs to county roads					231	30.03		
Repairs to concrete pavements			12,500	73.75	126	13.68	2½	5.22
Replacing sidewalks and curbs around public reservations	27,666	239.00	1,400	8.26			20	41.80
Bridges					192	72.24	5	10.45
Main and pipe sewers	2,000	13.00	224,750	1,325.97	24,461	4,679.27	324½	677.68
Suburban sewers			43,150	251.06	11,569	2,723.45	400	836.00
Replacing obstructed sewers	5,238	36.67	70,250	494.11	12,701	2,139.41	3	6.27
Cleaning and repairing sewers and basins			143,388	857.87	889	116.63	175½	367.32

a Includes four 4-inch "P traps" and four 4-inch "cesspools."
b Includes 200 taps for vent traps.
c Shows total amount of purchases to date.

—Showing construction materials purchased from appropriations for 1896–97—Continued.

opriation.	Red paving bricks.		Red sewer brick.		Sewer pipe.		Portland cement.	
	Number.	Cost.	Number.	Cost.	Feet.	Cost.	Barrels.	Cost.
lushing tanks			7,888	$46.53	98	$3.10	8	$16.72
t and B street								
ag sewer *a*			14,800	87.32	1,596	381.27	444½	922.77
l Easby's Point								
					846	52.28		
ewer *a*			2,850	16.82	1,494	580.77	968	2,011.24
ewer *a*					285	165.75	330	684.66
Fifteenth street								
t			4,000	23.60	570	60.15		
enue sewer *a*			8,200	48.38	59	9.13	150	297.32
penses and pipe								
n					150	7.50	40	83.60
of high-service								
							243	507.87
	8,667	$69.33						
nent							2	4.18
	2,100	18.90	7,250	42.77	410	34.84	7½	16.20
	986,722	8,294.65	8,283.06	4,973.39	90,301	16,330.61	3,950⅛	8,217.90

opriation.	Natural cement.		Sand.		Pebbles.		Lumber.	
	Barrels.	Cost.	Cubic yards.	Cost.	Cubic yards.	Cost.	Feet, B. M.	Cost.
its and repairs	90½	$64.26	506½	$231.93	96½	$56.75	9,158	$67.77
and permit work	4,325½	3,071.68	4,457½	2,051.33	3,060⅞	1,788.04	*b* 36,426	1,010.50
g county roads	600	425.92	221½	126.41	348½	205.22	5,490	145.04
airs, streets, ave-								
alleys	474½	337.04	1,002	451.30	180½	106.40		
ounty roads	6	4.26	1½	.67	101	59.59	3,559	152.76
concrete pave-								
	35½	25.20	13⅛	7.65	6½	3.74		
sidewalks and								
und public res-								
	38½	27.33	69⅛	31.25	20⅛	12.20		
	155	110.05					*c* 293,028	6,002.31
pe sewers	5,611⅛	3,992.58	648 1/16	323.67	1,134½	669.35	12,326	207.02
wers	3,915½	2,779.88	40	26.00	719 3/16	424.21	*d* 83,096	336.12
structed sewers	1,070	761.45	71⅛	46.07	781⅛	461.28	8,280	101.07
d repairing sew-								
sins	995	709.62	115⅛	74.40	235½	138.75	*e* 19,575	310.74
lushing tanks	75½	54.62	25	12.85	29⅛	17.51	186	3.41
t and B street								
ag sewers *a*	4,724	3,337.21	47½	23.18	36	20.94	3,177	34.98
d Easbys Point								
	3,467	2,483.29	3	1.35			16,926	313.13
ewer *a*	6,527	4,788.27	59⅛	26.95	112⅛	66.48		
ewer *a*	2,494	1,862.74						
Fifteenth street								
t	59	41.89	19⅛	8.08	31	18.29		
enue sewer *a*	950½	670.16	12⅛	7.10	11½	6.69	1,044	17.86
penses and pipe								
n	614½	439.86	212⅛	95.71	23	13.58		
of high-service								
	47	33.37	17½	7.88	2	1.18		
d repair of pumps	2	1.42	1	.45				
	22	15.79	10½	4.73				
arket house			6	2.70				
	98	*f* 69.58	16	7.20				
nent	83	58.93	54	24.45	3⅛	1.97		
a public order	1	.71	⅛	.15	⅛	.39		
	2,255⅝	1,617.90	1,008⅝	455.20	66⅛	40.91		
	38,737 7/16	27,784.51	8,640	4,048.66	6,970⅛	4,113.47	492,271	8,702.71

a Shows total amount of purchases to date.
b Includes 48 cedar posts, 1 window sash, and 430 palings.
c Includes 20 cedar posts.
d Includes 1,000 stakes.
e Includes 12 hickory poles.
f Includes cost of 45 cement sacks.

TABLE A.—*Showing construction materials purchased from appropriations for 1896–97*—Continued.

Appropriation.	Castings.						Lighting supplies.				
	Manhole frames.	Manhole covers.	Alley grates and frames.	Ventilator traps.	Manhole steps.	Cost.	Lamp posts.	Lanterns.	Signs.	Miscellaneous.	Cost.
Improvements and repairs	.....	3	.....	....	7	$4.92	.....	.....	.....	.....	.....
Assessment and permit work	222	222	2	29	1,400	1,092.72	.....	.....	.....	.....	.....
Current repairs, streets, avenues, and alleys	.....	1	1	....	.....	5.87	.....	.....	.....	.....	.....
Repairs to concrete pavements	2	3	4	....	16	31.39	.....	.....	.....	.....	.....
Bridges	29	55	.....	....	472	190.94	.....	.....	.....	.....	.....
Main and pipe sewers	119	163	28	....	619	819.70	.....	.....	.....	.....	.....
Suburban sewers	41	41	.....	....	323	204.22	.....	.....	.....	.....	.....
Replacing obstructed sewers	60	60	.....	....	350	287.24	.....	.....	.....	.....	.....
Cleaning and repairing sewers and basins	78	122	107	....	150	a 920.42	.....	.....	.....	.....	.....
Automatic flushing tanks	5	5	.....	....	25	23.43	.....	.....	.....	.....	.....
Rock Creek and B street, intercepting sewer b	13	13	.....	....	280	136.48	.....	.....	.....	.....	.....
F street and Easbys Point sewer b	.....	.....	.....	....	100	9.62	.....	.....	.....	.....	.....
Brookland sewer b	25	25	.....	....	230	127.98	.....	.....	.....	.....	.....
Eckington sewer b	.....	.....	.....	....	80	7.77	.....	.....	.....	.....	.....
Sewer in Fifteenth street extended b	3	3	.....	....	23	14.76	.....	.....	.....	.....	.....
Kenesaw avenue sewer b	4	4	.....	....	40	21.65	.....	.....	.....	.....	.....
Lighting	.....	.....	.....	....	.....	.....	251	300	1,015	178	$3,257.55
Deposits, etc	5	5	.....	....	37	24.63	.....	.....	.....	.....	.....
Total	606	725	142	29	4,152	3,923.74	251	300	1,015	178	3,257.55

Appropriation.	Bluestone basin tops, etc.				Siphons.	Repairs.	Renting.
	Traps.	Drip stone.	Cheek blocks.	Cost.			
Improvements and repairs	3	.....	.....	$51.70	.....	.....	.....
Assessment and permit work	.....	.....	.....	.....	.....	$14.40	.....
Repairs to concrete pavements	.....	1	2	2.70	.....	.....	.....
Main and pipe sewers	12	21	42	259.50	.....	.....	.....
Cleaning and repairing sewers and basins	10	22	42	242.75	c $12.20	.....	.....
Automatic flushing tanks	.....	.....	.....	.....	d 118.90	.....	.....
Rock Creek and B street intercepting sewers e	.....	6	.....	30.00	.....	.....	.....
Rent of property yards	.....	.....	.....	.....	.....	.....	$300.00
Total	25	50	86	586.65	131.10	14.40	300.00

a Includes 1 iron saddle sleeve.
b Shows total amount of purchases to date.
c Includes "flushing gear."
d Includes $6.90 freight.
e Shows total amount of purchases to date.

.—*Showing construction materials purchased from appropriations for 1896-97*—Continued.

Appropriation.	Testing.	Hauling.	Traveling.	Services.	Total.
nts and repairs		$107.74	$43.70	$1,074.50	$22,176.29
: and permit work		3,374.43		2,943.00	84,111.13
ig county roads		151.08		205.00	5,364.08
pairs, streets, avenues, and					
		128.57		41.50	3,230.88
county roads		32.40		50.00	329.71
concrete pavements				150.00	4,015.35
idewalks and curbs around					
ervations				50.00	793.63
		3.37			6,838.70
ipe sewers	$5.00			850.00	15,942.41
ewers		44.25		650.00	10,852.11
bstructed sewers				315.00	4,661.57
nd repairing sewers and					
		81.24		270.00	4,940.19
flushing tanks					311.50
: and B street intercepting					
		1.01		380.00	8,850.59
d Easbys Point sewer *a*				120.00	4,202.29
ewer *a*				335.00	13,618.38
ewer *a*				270.00	4,677 83
ifteenth street extended *a*					166.77
renue sewer				25.00	2,804.39
xpenses and pipe distribu-					
					776.21
f high-service system		22.77			772.80
nd repair of pumps					1.87
					3,278.07
narket houses					142.67
					146.11
ment		3.00			1,291.60
perty yards					300.00
m public order					1.25
c				50.00	2,662.87
	5.00	3,949.81	43.70	7,779.00	207,261.20

a Shows total amount of purchases to date.

.—*Showing list of employees other than those on per annum roll and amounts paid to each.*

ame and occupation.	Wages.	Improvements and repairs.	Assessment and permit work.	Sewers.	Repairs to concrete pavements.	Current repairs to streets, avenues, and alleys.
au, superintendent of prop-						
	$4.75	$228.00	$498.75	$617.50	$57.00	
, clerk	4.00	308.00	449.50	528.00		
ey, clerk	3.00	147.00	331.50	405.00	9.00	
dson, inspector	4.00	160.00	472.00	520.00	48.00	
, inspector and storekeeper	3.00	120.00	354.00	387.00	36.00	
dinson, inspector and store-						
	3.00	156.00	345.00	390.00		
gs, inspector and storekeeper	2.50	32.50	132.50	55.00		
, inspector and messenger	2.00		130.00	258.00		$11.50
, inspector	2.50	5.00				
as, inspector	2.50		61.25	1.25		
e, inspector			58.50			30.00
g, inspector	2.50		2.50			
	3.00	18.00				
	1.50 1.75		107.50	53.25		
		1,074.50	2,943.00	3,215.00	150.00	41.50

TABLE B.—*Showing list of employees other than those on per annum roll a amounts paid to each*—Continued.

Name and occupation.	Wages.	Constructing county roads.	Repairs to county roads.	Replacing sidewalks and curbs around public reservations.	Deposit and assessment fund.	Tot
L. T. Boiseau, superintendent of property	$4.75	$85.50				$1,4
J. E. Payne, clerk	4.00			$2.00	$50.00	1,2
W. J. W. Grey, clerk	3.00	39.00				9
Wm. Donaldson, inspector	4.00		$50.00	2.00		1,2
W. H. Voss, inspector and storekeeper	3.00	42.00				9
H. M. Dickinson, inspector and storekeeper	3.00	18.00		21.00		9
J. P. Jennings, inspector and storekeeper	2.50					2
Ed. Morris, inspector and messenger	2.00	3.50		11.00		4
J. T. Loulan, inspector	2.50	3.75				
G. M. Thomas, inspector	2.50					
J. A. Neville, inspector						
J. D. Bitting, inspector	2.50					
Carpenters	3.00					
Laborers	1.50 1.75	13.25		14.00		1
Total		205.00	50.00	50.00	50.00	7,7

FIRST DIVISION.

Capt. EDWARD BURR,

Corps of Engineers, United States Army, Assistant to the Engineer Commissioner, in charge.

WATER DISTRIBUTION	W. A. MCFARLAND, *Superintendent, Water Department.*
WATER RATES	JOHN J. BEALL, *Water Registrar and Chief Clerk, Water Department.*
STREET LIGHTING	H. D. MANKIN, *Superintendent of Lamps.*
ELECTRIC WIRES AND CONDUITS	W. C. ALLEN, *Inspector.*
INSPECTION OF GAS AND METERS	S. CALVERT FORD, *Inspector of Gas and Meters.*
BUILDINGS AND BUILDING INSPECTION	J. B. BRADY, *Inspector of Buildings.* E. F. VERMILLION, *Inspector of Elevators.*
SURVEYOR'S OFFICE	H. B. LOOKER, *Surveyor, District of Columbia.*
PARKING COMMISSION	TRUEMAN LANHAM, *Superintendent of Parking.*

REPORT OF ASSISTANT IN CHARGE.

OFFICE OF THE ENGINEER COMMISSIONER,
DISTRICT OF COLUMBIA,
September 30, 1897.

CAPTAIN: I have the honor to submit the following report upon the operations of the division under my charge for the fiscal year ending June 30, 1897:

This division includes the general supervision of water distribution, water rates, street lighting, electric conduits and overhead wires, inspection of gas and meters, building inspection and construction and repair of municipal buildings, surveyor's office and subdivision of land, and parking commission.

WATER DISTRIBUTION.

The maintenance of an ample supply of water for the District of Columbia, for its buildings and grounds, and for the use of its citizens, is a divided responsibility. The supply system, consisting of the Washington Aqueduct with its reservoirs and the original large mains leading from the distributing reservoir into the city, was provided by the United States to furnish water for its public buildings and grounds, and is under the charge of its officers. The use of any water in excess of that requisite for its own needs was freely granted by the United States to the citizens of the District of Columbia. With the increase in population in the District and in the amount of water used by its citizens and by the United States, portions of the original system proved of insufficient capacity, and necessary increases and improvements have been made in part or wholly at the expense of the District. The means for distributing the water to the private consumer,

including pumping to the higher levels, have been provided by t
District of Columbia, and this service, together with the collection
revenues for its maintenance and extension, is under the control
the Commissioners.

The supply system, in so far as relates to the maintenance of
adequate supply of water in the distributing reservoir, is, by reas
of recent improvements, in condition to meet all legitimate deman
that may be made upon it for some years to come. The mains pr
vided for delivering water from the distributing reservoir, three mil
west of the White House, to the city have been at times in the past a
now are of capacity insufficient to fully meet the demands made up
them. The present overtaxed condition of these mains causes very co
siderable losses of pressure, with a resulting insufficient supply
water on the higher levels. Careful inspections made on the lines
the large supply mains indicate a marked and general decrease from t
pressures existing in 1890, when the supply was in as good conditic
as could be reasonably expected with the present system of distribu
tion from a reservoir located four miles from the center of the area
to be supplied. In the higher areas, more particularly on Capit
Hill and in the northwest, the pressure has never been more tha
sufficient to give a fair service, and a loss of from 7 to 14 feet of pre
sure means that in such localities the third floors of most houses wi
be without water the greater part of the time, and the second floor
of many houses will have only an intermittent supply. The presen
conditions are little better than those existing in 1889, before the las
increase of the water supply made by laying the 48-inch main
Where the deficiency in supply is confined to a single locality, relie
may be and has been had from temporary expedients, such as th
readjustment of valves. Such means have been employed to hold u
the pressure on Capitol Hill and in other localities, but no furthe
relief of complaints of insufficient water service can be expected fron
these expedients. The existing general deficiency in the water serv
ice can only be remedied by increasing the amount of water brough
into the city or by reducing the excessive waste.

INCREASE OF WATER SUPPLY.

While the pressures in the large supply mains have decreased sinc
1890 as much as from 7 to 14 feet in the higher localities, the wate
level in the distributing reservoir has been fully maintained durin
the past year. In fact the aqueduct has delivered into the reservoir
more water than the mains could bring into the city and the exces
has been wasting over the sluiceway of the receiving reservoir. Th
aqueduct and headworks are now in condition to deliver into the res
ervoirs sufficient water to meet all legitimate demands for many years
The mains leading from the distributing reservoir into the city ar
now taxed beyond their proper capacity, and although there is a
ample supply in the reservoirs, no increased supply can be had withi
the city until the tunnel conduit, or a substitute therefor, is com
pleted.

The tunnel conduit was carefully examined in the previous year b
a commission composed of the ablest experts on such constructions i
this country. This commission strongly favored the completion o
the tunnel and the Howard University reservoir as the best and mos
economical means of furnishing an increased supply of water. It ca
not be too urgently recommended to Congress that, in order to increas
the supply and maintain the pressure in the higher areas, the resump

tion of work upon the tunnel be authorized immediately. The work should be pushed to completion with all the speed consistent with its proper execution, since, under the most favorable circumstances, its completion will require at least two years. Much discomfort, distress, and danger are now continually experienced on account of the inadequacy of the present system to meet the demands made upon it, and existing conditions become more aggravated with increasing population and demands for water.

The Washington water supply is provided by a gravity system, the water being drawn from the Potomac River at Great Falls and flowing by gravity alone through the aqueduct, reservoirs, and mains without the employment of pumps to increase the pressure in the low service, in which about 90 per cent of the water is used. For the service of the higher levels, about 10 per cent of the supply is pumped from the low-service mains. The dam at Great Falls is placed 150.5 feet above datum (mean high water at the navy-yard) and the water level of the distributing reservoir is 146 feet. A pressure of 30 pounds, sufficient to deliver water, say, 60 feet above the street, is considered the minimum for a fair domestic service, and with no loss of pressure from friction in the mains, such service could not be had in the low service at any point higher than 85 feet above datum. Large areas of the best residence sections of Washington, including Capitol Hill and all of the northwest section west of New Jersey avenue and north of New York and Massachusetts avenues, are from 75 to 90 and 100 feet above datum, and evidently can hardly receive a fair water service even under the most favorable conditions. This distributing reservoir is located, as the mains run, about 3 miles from the White House and Dupont Circle, 4½ miles from Fourth and R streets NW., 6 miles from the Capitol, and 7 miles from Lincoln Park. With supply mains of such lengths the loss of pressure must be considerable even under normal conditions. Even after the last increase in the supply in 1890, the pressures on East Capitol street were only from 15 to 20 pounds and in the northwest but 15 to 27 pounds. At the present time the average pressure on East Capitol street is less than 15 pounds and in the northwest is from 12 to 22 pounds, insufficient to supply water to the second floors of many houses during portions of the day. The loss of head or pressure from the reservoir to Fourth and R streets NW. is 20 feet, and to East Capitol and Fifth street is 25 feet. The saving of this great loss of pressure will immensely improve the service and can only be properly and permanently effected by bringing the source of supply, i. e., the reservoir, nearer to the center of the population to be served. The completion of the Howard University reservoir and of the tunnel conduit (or of some other conduit of equal capacity) will maintain without loss of head a full supply in close proximity to the higher levels, an end not to be gained by any other means. As is evident from the pressures on Capitol Hill in 1890, the laying of the 48-inch main did not increase the pressure to the amount that is necessary for good service, and the laying of additional mains of that size will not do so now. Whether the waste of water is to be reduced or not, the tunnel conduit should be completed for the maintenance of pressures throughout the city and of an ample supply of water in all sections.

WATER WASTE.

The present unsatisfactory state of the water supply is due largely to waste. This term is used in contradistinction to water consumption,

as applied to all uses of water from which benefit of any character results. All water department officials concur in advocating a free use of water for all purposes conducive to the comfort, safety, health, and convenience of the people in their homes or their business, but all are strongly opposed to allowing water to waste into sewers to no useful end whatever. It is not economy in the use of water that is desired. The stoppage of absolute and unnecessary waste is all that is advocated.

The following table shows the consumption and waste of water in the District of Columbia for each year from 1880 to 1897, both inclusive. The total consumption and waste for each year is taken from the reports of the officers in charge of the Washington Aqueduct and the population from United States and police census reports:

Year.	Total.	Per capita.	Estimated population.	Remarks.
	Gallons.	*Gallons.*		
1880	25,740,138	145	177,638	U. S. census.
1881	26,525,991	145	182,893	Estimated.
1882	29,727,964	158	187,968	Do.
1883	24,314,715	126	193,133	Do.
1884	24,827,113	125	198,198	Do.
1885	25,219,194	124	203,459	Police census.
1886	25,542,476	122	208,358	Estimated.
1887	26,878,424	126	213,357	Do.
1888	29,115,774	133	218,157	Police census.
1889	27,708,779	123	225,309	Estimated.
1890	35,541,845	153	232,460	U. S. census.
1891	38,594,743	160	248,539	Estimated.
1892	41,161,780	156	264,618	Police census.
1893	46,727,108	170	267,569	Estimated.
1894	49,162,357	181	270,519	Police census.
1895	47,182,681	173	272,667	Estimated.
1896[a]	44,113,574	165	274,815	Do.
1897[a]	45,267,046	164	276,963	Police census.

[a] Mean of two measurements.

The population stated in this table is that of the entire District, and includes suburban and rural population entirely without water facilities, amounting to not less than 6 per cent of the total. The per capita consumption and waste for the urban population and so much of the suburban as is supplied with water is correspondingly greater than that stated.

Considerable variation will be noticed in the total consumption and waste, due to the fact that the figures given are from only one, or at most two, measurements, and that the use and waste of water varies materially with the weather conditions. Variations in the estimated per capita consumption and waste are due to the facts just stated, and also to probable inaccuracies in estimates as to the population. A fairly accurate view of the per capita consumption and waste may be had by selecting from the above table the data for the years previous to 1892, in which a United States or police census was taken and for all years subsequent to 1892:

	Gallons.		Gallons.
1880	145	1893	170
1885	124	1894	181
1888	133	1895	174
1889	123	1896	160
1890	[a]153	1897	164
1892	156		

[a] 48-inch main completed.

These figures show a gradual decrease in the per capita use of water from 1880 to 1890, due to an increasing demand and a stationary supply. With the completion of the 48-inch main in 1890, the per capita shows a sudden increase to 153 gallons, and then a further gradual increase to 181 gallons in 1894. The per capita decrease since 1894 is due to some cause not apparent in the above tables, as is evident from the fact that the total consumption and waste have decreased since 1894 with an increase in the population and number of premises supplied. An explanation will be offered later.

The above figures represent the demand for water under normal summer conditions. The following table shows the figures under conditions of normal and of maximum, but not unusual, consumption and waste in winter and summer. The maximum summer demand shows the amount wasted as well as legitimately used for irrigating purposes, all drawn in a few hours of the twenty-four. The maximum winter demand shows the additional and entirely useless waste caused by allowing water to run from fixtures in order to prevent the freezing of pipes. It is this latter and utterly inexcusable waste that causes the greatest complaint of insufficient water supply.

Date.	Consumption and waste.		Temperatures.			Weather.
	Total.	Per capita.	Maximum.	Minimum.	Mean.	
1897.	*Gallons.*	*Galls.*	*Deg.*	*Deg.*	*Deg.*	
Jan. 24	42,250,000	153	34	14	24	Cold.
25	44,450,000	160	16	9	12	Do.
26	52,800,000	191	24	8	16	Do.
27	52,100,000	189	24	16	20	Do.
28	52,350,000	189	18	9	14	Do.
29	52,700,000	190	26	14	20	Do.
30	51,250,000	185	30	9	20	Do.
31	53,700,000	194	36	10	23	Do.
Feb. 1	51,850,000	187	38	12	25	Do.
2	50,550,000	186	38	32	35	Moderate.
June 23	45,282,915	164	85	62	74	Moderate; not dry.
30	45,251,178	164	84	67	76	Do.
Aug. 11	48,722,354	176	97	66	82	Warm and dry.

The above figures are for the entire District, including those portions supplied by the middle and high service. Similar data from the middle service, to which is pumped about 10 per cent of the total supply, show similar conditions, although the per capita rates are lower than for the entire supply, due to its being a purely residence section, with little or no use of water for governmental or business purposes, and to the more modern and better condition of the mains and plumbing.

The following table shows the total and per capita consumption and waste in the middle service, with a population estimated at 35,280, or 8.64 persons for each tap or premises supplied with water:

Date.	Consumption and waste.		
	Total.	Per capita.	Per tap.
	Gallons.	*Gallons.*	*Gallons.*
May, 1897, average per diem	4,208,500	119	1,032
June, 1897, average per diem	4,536,800	128	1,112
July, 1897, average per diem	4,695,400	133	1,150
August, 1897, average per diem	4,870,000	138	1,193
June 23, 1897	4,282,500	121	1,050
June 30, 1897	4,158,000	118	1,002
September 11, 1897	5,161,500	146	1,265

For the low-service area, with a population estimated at 225,228, o 5.27 persons per tap or premises, the rates per capita and per tap fo June 23, 1897, are, respectively, 181 and 960 gallons.

The per capita use of water in this city, even under normal condi tions, is so large as to lead to but one conclusion—that a large per centage of it is wasted and performs absolutely no useful service. I cold weather the custom of permitting fixtures to run in order to avoi the freezing of exposed pipes adds largely to the already excessiv waste, and casual inspections show an excessive use and waste fo sprinkling purposes in warm dry weather.

In the past it has been the almost universal custom when the wate supply of a city became unequal to the demands made upon it to pro ceed, at a large expense, to increase the supply by enlarging the works. Of late years, with a rapidly increasing per capita demand, and in many instances a limited available supply, much attention has been given to reducing waste—avoiding expensive extensions of works and increasing pressures by conserving the supply already available.

Experienced water-supply engineers and officials differ somewhat as to the proper and allowable per capita consumption under varying local conditions, but all are practically agreed that a maximum of 100 gallons per capita is ample under any circumstances and includes a liberal allowance of water for domestic, commercial, and other pur poses, with a considerable percentage for waste. In all cases any thing in excess of 100 gallons, and in most instances much of this 100 gallons, is careless, deliberate, and willful waste.

Mr. Dexter Brackett, C. E., for many years identified with the wate supply of Boston, has prepared two able and comprehensive paper upon the consumption and waste of water. The first appears in th report of the Massachusetts State board of health upon a water sup ply for the Boston metropolitan district and the second in the Transac tions of the American Society of Civil Engineers, Vol. XXXIV, 1895 with the views of other able and experienced members of the society It is regretted that space will not permit the insertion here of libera extracts from these papers.

The following table and quotations are, however, of such impor tance by reason of the facts they contain, the results of actual meas urements and long experience in the water service of a large city, a to make their insertion here necessary:

Consumption, per capita, for domestic use in Boston, Brookline, Newton, Fa River, Worcester, and London, England, as determined by meter measurement.

City or town.	Number of houses.	Number of families.	Number of persons.	Consumption.		Remarks.
				Per family.	Per capita.	
				Galls.	*Galls.*	
Boston	31	402	1,461	221	59	Highest cost apartment house in the city.
Do	46	628	2,524	185	46	First-class apartment houses.
Do	223	2,204	8,432	123	32	Moderate-class apartmen houses.
Do	39	413	1,844	80	16.6	Poorest-class apartment house
Do	339	3,647	14,261	139	35.6	Average of all apartment house supplied by meter.
Do	40	.....	1,699	.....	46.1	Boarding houses.
Brookline	.....	828	4,140	221.5	44.3	Average of all dwellings sup plied by meter.
Newton	490	490	2,450	132.5	26.5	All houses supplied with moder plumbing.
Do	.....	619	3,005	.....	6.6	These families have but one fau cet each.

Consumption, per capita, for domestic use in Boston, Brookline, Newton, Fall River, Worcester, and London, England, etc.—Continued.

City or town.	Number of houses.	Number of families.	Number of persons.	Consumption.		Remarks.
				Per family.	Per capita.	
				Galls.	*Galls.*	
Newton		278	1,390	34.5	6.9	These families have but one faucet each.
Fall River	28	34	170	127.5	25.5	The most expensive houses in the city.
Do	64	148	740	42	8.4	Average class of houses generally having bath and water-closet.
Worcester		20,514	90,942		16.8	Whole domestic consumption.
Do		81	327	80.2	19.9	Woodland street, best class of houses.
Do		37	187	118.1	23.4	Cedar street, best class of houses.
Do		93	447	95	19.8	Elm street, houses of moderate cost.
Do		245	1,104	55.1	12.2	Southbridge street, cheaper houses.
Do		229	809	55	15.6	Austin street, cheaper houses.
London, England	1,169		8,183		25.5	Houses renting from $250 to $800, each having bath and two water-closets.
Do	727		5,089		18.6	Middle class; average rent, $200.

From a study of the preceding facts the author draws the following conclusion in regard to the actual requirements of different communities: The quantity needed for domestic use is not more than 30 gallons per inhabitant, and in communities where the number of water fixtures is small in proportion to the population supplied a smaller quantity will answer all requirements. For business, mechanical, and manufacturing use the amount per capita will differ very largely in different cities, and for various reasons. It is not probable, however, that the actual requirement at present exceeds 40 gallons per capita in any of our large cities.

The quantity needed for public use is not more than 5 gallons, making a total of 75 gallons as the maximum quantity needed for actual use, without any allowance for waste.

* * * In Chicago, Cleveland, Philadelphia, and Detroit the consumption is about 150 gallons, of which probably one-half is wasted.

This waste can be attributed to the following causes: First, defective plumbing; second, defective street mains and services; third, waste to prevent freezing of services; fourth, willful waste.

The experience of the author leads him to be of the opinion that it is not practicable to reduce the waste below 15 gallons per capita in our large cities, and that it can not be maintained at that figure except by the universal use of water meters aided by Deacon meters or some similar device for detecting leaks in street mains. In cities where water meters are not generally used the quantity wasted will be from 20 to 100 gallons per capita, as the inspection of mains and house fixtures is more or less rigid.

While no data can be given from actual measurements by meters of the amount of water used in Washington for various purposes or wasted to no useful end, a study of the daily and hourly amounts of water supplied bear out remarkably well in many respects the statements of the authority just quoted. For this city the per capita consumption for domestic purposes should be about 30 gallons, as estimated above. From the known character of the city, it is to be expected that the per capita for commercial and manufacturing purposes will be relatively small as compared with other cities of the like size (in Boston 40 gallons is estimated for this purpose), and that the total for all uses other than domestic should be less than in a commer-

cial city. The following table is based on the reports of the Washington Aqueduct and of the high service pumping station:

Consumption and waste.

Consumption and waste.	High service.		High and low service.			
	Average, June 24 and 30.	Sept. 11.	Average, June 24 and 30.	Sept. 11.	Jan. 24.	Jan. 31.
	Gallons.	*Gallons.*	*Gallons.*	*Gallons.*	*Gallons.*	*Gallons.*
Total	4,220,000	5,161,000	45,267,000	48,722,400	42,250,000	53,700,000
Minimum for 1 hour	144,600	163,500	1,377,400	1,524,500	.....	.....
Maximum for 1 hour	241,500	291,000	2,251,000	2,513,500	.....	.....
Per capita total	120	146	164	176	153	194
Per capita rate:						
Minimum	98	111	120	132	.....	.....
Maximum	164	198	196	218	.....	.....

June 24 and 30 were two normal days of moderate summer temperature, in a period when, on account of showers, little or no water was used for sprinkling purposes. September 11 was a hot day in a dry period, with the probable maximum use of water for sprinkling. January 24 was a normal winter day, and January 31 occurred toward the end of a cold period, when the waste by running water to prevent freezing of service pipes and fixtures was at its maximum.

The minimum for one hour is the smallest single hour's consumption and waste during the twenty, and represents the amount of water supplied hourly from 11 p. m. to 4 a. m. During these hours the actual use of water practically ceases, especially in residential sections, and any large supply may be accounted for only as waste. The above table shows that under ordinary conditions of weather the consumption and waste during the midnight hours in the High Service is at the rate of 81 per cent of the daily supply, and in the whole city is at the rate of 73 per cent of the total daily supply. No more positive indication of excessive waste could be cited.

The High Service supplied a section that is purely residential, with practically no use of water for commercial or governmental purposes. There can therefore be no question as to the amount of water used in this service for United States buildings and grounds. It is all used for municipal and domestic purposes. Under normal conditions (June 24 to 30) the total per capita rate is found to be 120 gallons, and the per capita rate for the hours between midnight and 4 a. m. is found to be 98 gallons. Considering the residential character of the section supplied by this service, it is safe to assume that the midnight rate for water *used* is not more than 5 gallons per capita and that the other 93 gallons of the 98 are wasted. If the waste is at the rate of 93 gallons and the total consumption and waste is 120 gallons, the consumption proper is but 27 gallons per capita, and may be assumed to be used entirely for domestic purposes, since the quantity used for municipal purposes is probably less than 2 gallons. As this rate covers a population of 35,000 and the best sections of the city, it may be assumed as the actual legitimate use for domestic purposes for the entire city.

For the whole District, under normal conditions (June 24 to 30), the total consumption is 164 gallons and the minimum hourly rate is 120 gallons. A liberal assumption that 10 gallons of the latter is used shows a waste of 110 gallons and a legitimate use of 54 gallons, of which (as estimated above) 27 gallons is for domestic purposes and

27 gallons for all other commercial, municipal and governmental purposes.

The consumption on September 11 as compared with June 24 to 30 shows a minimum use for sprinkling purposes of 12 gallons per capita for the District. For the High Service alone it is 25 gallons.

The figures for January 24 and 31 are interesting, as showing the enormous daily waste of water (11,450,000 gallons total, 41 gallons per capita), from allowing fixtures to run in cold weather to avoid freezing. When added to the normal, regular waste, it is not surprising that the higher localities are short of water during cold waves and for some days thereafter.

A résumé of the above figures as to per capita use of water is:

	Gallons.
For domestic purposes 27, or say	30
For commercial and United States purposes 27, or say	30
For sprinkling (maximum) 12, or say	15
Total maximum legitimate use	75

Add for waste, not deliberate or willful, 25 gallons, and the total is 100 gallons per capita, or 28,000,000 gallons a day. With such an allowance and supply of water there would be ample for all purposes—domestic, commercial, and public. There would be no necessity for stinting or economy in any legitimate use of water. All that is necessary is the suppression of careless, deliberate, and willful waste, due to defective plumbing, known or unknown, and positive personal violations of regulations in opening fixtures to allow water to run continuously.

There is but one means to fully control and suppress such waste—the general extension of the meter system to all classes of consumers, domestic as well as commercial. Until this means is adopted periodical shortages in the water supply of this city must be expected, not because the supply of water is insufficient for all legitimate uses, but because 70 per cent of it is wasted and serves no good end whatever.

That the general introduction of meters will accomplish this end without hardship, increased cost to consumers, insanitary conditions or any curtailment of the proper use of water, there can be no doubt. The opinion of all authorities and the experience of all communities where the meter system has been generally introduced leads to this belief. By the use of meters is obtained a suppression of waste, a uniformity of water rates according to the amount of water used or wasted, and an increase of pressure with a general improvement of the service without the expenditure of large sums for enlargements of works.

To illustrate the benefits of the meter system it is necessary to refer to but one city, Detroit, with about the same population as the District of Columbia. The following quotations are taken from a statement made by Mr. L. N. Case, Superintendent of the Detroit Water Works, before a committee of the Legislature of the State of Michigan, having under consideration what is known as the "free water bill" for Detroit:

> There has been found but one really efficient restriction to waste, and that is the meter, although assessing upon the basis of consumption as estimated is partially so. * * *
>
> For years, and up to 1889, Detroit, Buffalo, and Philadelphia operated upon the assessment plan entirely. Detroit pumped a daily per capita supply of 204 gallons. Our capacity was more than exhausted, and complaints of short supplies were bitter and increasing. March 6, 1889, I demonstrated to the Board that meters must be used to stop this enormous waste or an enlargement of the works

entered into immediately at an estimated expense of $600,000. The introduction of meters was decided upon. The following conditions of the three cities in 1887 and 1896 will show the results of the introduction of meters in Detroit and the continuance of the old method in Buffalo and Philadelphia:

Daily pumpage in million gallons.

	Buffalo.	Philadelphia.	Detroit.
1887	38	88	36
1896	101	239	36
Increase in population.....per cent..	34	46	56

Detroit, at the same rate of increase of Buffalo and Philadelphia, which corresponded exactly with her increase previous to using meters, would have pumped 101,000,000 gallons daily. This would have required an expenditure of over $200,000 for engines and pipes more than was expended and an extra expense for pumping water of $94,900 for last year, with a proportionate increase for the intervening years.

* * * * * * *

One-third increased pressures!

The result in Detroit is a stationary total consumption for ten years, with a 56 per cent increase in population and a per capita decrease from 203 to 130 gallons. This was accomplished by metering about 5,000 consumers of a total of 49,000, and while the effect is marked the per capita supply still shows large waste that can be reduced by increasing the number of meters.

In this city (Washington) the increase in the use of meters has produced a similar but no less marked effect. The existing law requires the use of meters only by hotels, livery stables, manufacturing establishments, and other large consumers. Since 1894 all such consumers have been required to use meters. The following table shows the result:

	1894.	1895.	1896.	1897.
Number of premises supplied	44,185	45,675	46,908	48,540
Number of meters	202	231	574	777
Water supplied.....gallons..	49,162,000	47,182,000	44,114,000	45,267,000
Per capita.....do....	181	173	165	164

With an increase since 1894 of 4,355 in the number of premises supplied with water the total daily supply is reduced by about 4,000,000 gallons and the per capita supply from 181 to 164 gallons. This can be attributed to no other cause than the metering of about 500 large consumers of the character mentioned above.

As the law now stands, no further extension of the meter system can be made, since all premises excepting dwellings and small shops are metered. To further curtail waste, meters must be gradually applied to all consumers. It is the current belief that the excessive consumption here arises from large use and waste of water in the United States buildings and grounds. While undoubtedly there is some waste in the departmental buildings, there are good grounds for believing that it is very much less than suspected, and that the waste is largely due to defective plumbing, and willful, deliberate, or careless waste in dwellings. The High Service, as above stated, supplies a purely residential section composed largely of modern houses, and served through comparatively new mains and services. The

natural expectation would be for a smaller rate of waste than for the whole city. On the contrary, the percentage of waste, as shown by the water supplied from midnight to 4 a. m., is noticeably larger than for the Low Service containing the business section and a much larger proportion of older houses, plumbing, services, and mains. The unavoidable conclusion is that there is more waste in the residential section and in dwellings than in business or commercial premises, and that the United States Departments, though, as stated earlier, entitled by law to use or waste as much water as they desire, in fact do not waste as much or at the same rate as the resident population.

This waste can be reached and corrected only by meters. House-to-house inspection has been found to avail little, besides being extremely offensive to citizens. It has been found impracticable to correct leaks and waste except by cutting off the water, a very harsh measure, and only to be resorted to in exceptional cases. It is the numerous but very small leaks that cause the great waste, and to cut off the water for such would entail many hardships and bitter complaints.

The water meter makes each householder an inspector of the most effective kind, besides detecting leaks unknown to the consumer and not to be found by an inspector. An instance will illustrate: The second quarterly bill rendered after placing the meter in a hotel in this city produced a vigorous complaint of excessive charge and of incorrect meter. After retesting the meter to satisfy the consumer, a series of all-night readings showed such a large midnight registration as to indicate a large waste. With some difficulty the waste was located, and the average daily use was reduced from 53,800 to 32,400 gallons. Without doubt water is wasting in many similar cases of hidden leaks without the slightest benefit to anyone, and such wastes will continue until the use of the meter makes it to the interest of the consumers to seek out and correct their causes.

From other points of view the use of the meter is desirable or necessary. It is not practicable or possible to so rate by any scheme of assessment as to charge each consumer, even approximately, correctly for the amount of water used. All assessment or flat rates are based upon the size of the building, number and character of fixtures, number of occupants, or some similar data. The amount of water used does not necessarily bear any relation to any of these, and the waste of water certainly does not. It is inconsistent and unjust to rate a modern house with first-class plumbing and no appreciable waste on the same basis as a rookery with fixtures leaking continuously and left to run every cold winter night to avoid the freezing of exposed pipes. And yet all assessment schedules give two such houses the same rating, provided they are of the same size or comply equally with some other arbitrary requirement. Such conditions exist in every city. Every assessment schedule bears inequitably and gives rise to many complaints that can be met by only one answer—by the meter system, and no other; consumers pay for what they use and waste, neither more nor less. The sale of water should be conducted upon the same sound business principles as govern the sale of gas, provisions, or any other commodity, bearing in mind always that the proper use of water is to be encouraged. To deliver water throughout a city requires large expenditure. It can never be free, but must be paid for in one way or another, and there is neither justice nor sense in compelling one householder to pay for more than he uses in order that his extravagant, careless, or law-breaking neighbor may pay for less than he uses and wastes.

Another and more serious consideration presents itself. While the quantity of water available in the Potomac River is far beyond the immediate demands of the city, the capacity of the aqueduct is limited, and is probably not more than 75,000,000 gallons a day. With a supply equal to all demands, the use of water increased from 27,700,000 in 1889 to 49,100,000 in 1894, an increase of 21,400,000 gallons in five years. The increase from 1889 to 1890 was nearly 8,000,000, or 30 gallons per capita. When the supply is again increased, as it must be shortly if the present system continues, a similar increase in total and per capita demand is to be expected. Washington, Buffalo, and Philadelphia represent the extreme conditions of water waste. In Washington, from 1889 to 1894, the annual increased demand was 17 per cent, and in Buffalo and Philadelphia it was 18 and 19 per cent, respectively, between 1887 and 1896. With an increased supply it is safe to assume that the present conditions may again recur in five years, and certainly in ten years, when the capacity of the present aqueduct will be reached. Unless a short-water supply is to be accepted as a chronic condition in this city, the waste of water must be curtailed or measures should be at once undertaken for the duplication of the aqueduct from Great Falls to the reservoirs at an expense of millions of dollars. Is there any sound reason why millions should be spent by the city and the United States to bring an increased supply of water into the city for no other purpose than to return it again to the Potomac River through the sewers without benefit of any kind?

Excessive waste has a vital bearing upon the probability of filtration. Potomac water in the past has borne a good reputation for purity, but of late years has been suspected of pollution. With increasing population in the Potomac watershed and increasing liability to pollution, filtration is now necessary for the assurance of pure water. The cost of a plant, including all land and appliances, to supply 50,000,000 gallons of filtered water daily will not be far from $1,000,000, upon which interest at 3 per cent and sinking fund requirements for extinguishment of the indebtedness in twenty years will be $80,000 a year. The officer in charge of the Washington Aqueduct, in his report for 1896, states the cost of operation of filtration plants to be alone from about $4 to $8 per million gallons, that is, at the lower figure, $73,000 for 50,000,000 gallons daily, a total for interest and sinking funds and operating expenses of say $150,000 a year. For a daily supply of 30,000,000 gallons, more than ample for all the present needs of this city, the cost of plant and the annual expense would be reduced to $600,000 and $90,000, respectively. Is it not absurd to invest $400,000 more than necessary and increase the annual expense by $60,000 to no purpose except to waste filtered water into the sewers to no possible good, and are not the probabilities of obtaining the smaller plant greater than for providing the larger? Moreover, filtered water costs much more than the unfiltered, and this increased cost must be met by the consumers, probably in the form of increased water rates or rents. The people themselves must furnish the $60,000 a year or more that is wasted into the sewers.

The general popular opposition to the use of water meters is fully recognized. The public official who, notwithstanding such opposition, does not fully place before the public the facts with regard to the great and entirely useless waste of water in this city, fails of his duty, particularly in view of the general misapprehension as to the utility of such waste and the effect of the meter system. This opposition is based upon the assumption that such waste is of value in pro-

g cleanliness and better sanitary conditions in flushing closets
ewers; that the meter will tend to restrict the free use of water
detriment of the public health and comfort, and that the great-
aste is in the Government buildings. None of these grounds is
ed to be well taken.

m data compiled by the aqueduct office, based in many cases
the assumption that the Departments are using water continu-
to the full capacity of the mains and pipes that supply them, it
nd that the amount of water used in Government buildings is
vely small. The municipality uses much the largest part of the
delivered by the Aqueduct and, as the figures quoted above of
nsumption in the High Service clearly show, the proportion of
is greatest in residential sections. All business premises cov-
by existing law are now metered and no further reduction of
in that direction can be expected.

greater portion of the waste in dwellings is from leaking closets
xtures, through which there is a continuous small flow. That
low is insufficient and useless for flushing purposes is evident,
the fact that all modern closets flush with a large flow suddenly
ed from a tank. The old type of fixture, flushing only with the
rom the pipes, even running full capacity, is tabooed, and its use
hibited by all sanitary authorities. It is well known that a
small flow in the public sewers has no flushing effect, and that
sewers must be flushed periodically by heavy stream directed
gh catch basins or by a large quantity suddenly released from
atic tanks. The following table, compiled at random from infor-
n at hand, shows that no tangible relation exists between per
supply of water and health conditions, as indicated by death
ics. While there may be slight errors in the following data, the
s are practically correct:

City.	Gallons per capita.	Death rate.	Population, 1896 (estimated).
		Per cent.	
	300	13.26	335,709
phia	172	20.17	1,525,000
gton	164	20.96	278,150
	160	21.01	100,000
	130	14.28	320,000
	125	16.91	110,000
rk	123	20.86	1,995,000
	85	21.11	36,000
	80	21.85	87,000
ket	72	18.30	33,704
er	68	13.51	170,000
	63	17.53	28,280
e	61	15.76	100,000
	60	9.25	155,000
City	60	17.02	150,000
nce	57	19.93	148,334
er	37	22.46	98,000

falo, with the largest per capita water supply, has a low death
but St. Paul has a much lower rate with a per capita water
y of only one-fifth that of Buffalo. Evidently other conditions
large waste of water determine the death rate, as, for instance,
of supply, obtained by filtration if necessary.

effect of the meter system, properly applied, is not to cause
economy in the use of water, but to restrict unnecessary waste.
use of water is desired and should be encouraged, more par-
rly in the poorer class of dwellings and tenements. This can be

and is accomplished by establishing in all cases a minimum rate, th must be paid irrespective of the amount of water used. While th rate would be lower than the ordinary schedule or assessment rat it would permit, without extra charge, of the liberal use of water f all necessary purposes in the class of dwellings where undesirab economy might be practiced. Waste, and waste only, would be a extra charge in such cases. In the better class of dwellings no undu economy is to be feared, and waste from leaking fixtures and fro permitting fixtures to run incessantly would continue only so long a the consumer was willing to pay for the water. In any case, he woul pay only for his own consumption and waste and for no part of h neighbor's.

It is proposed to place and care for all meters at the expense of th Water Department. Good service can be had only by municipa ownership of the meters, and to require the consumer to provide an care for the appliance by which his supply of water is measured i unreasonable. The expense of this work can be met from the curren funds of the Department without increased appropriation, and i would be the intention to apply the system gradually as such fund were available for the purpose, placing meters first in premises i which waste was known or suspected.

There would be no increase in water rates to provide additiona funds. In fact, the experience of other cities, notably in Detroit would incline toward a prediction of a reduction in rates in the cours of time. A minimum rate of 75 cents a quarter, or $3 per annum would probably be adopted, a reduction of 50 cents from the presen minimum schedule rate. Upon a consumption of 75 gallons per capita which would be reached only in the very best classes of houses with a most liberal use of water for all purposes, the charge for water woul amount to about 80 cents per capita per annum, with the additiona advantage of quarterly payments after the water is used.

WORK DURING PAST FISCAL YEAR.

During the year 94,015 feet of water mains were laid, including 2,18 feet of 20-inch, 6,877 feet of 12-inch, and 71,266 feet of 6-inch pipe, the remainder being of the smaller sizes. Of the mains laid, 36,198 feet were in the Middle and High Service, 50 fire hydrants were erected, and the numerous ordinary repairs were made in all parts of the system. Full particulars as to the size, location, and cost of new mains, hydrants, etc., will be found in the report herewith of the Superintendent of the Water Department, to which reference is made for all of the details of the work of the year.

In this connection it seems proper to invite attention to the valuable service rendered by Mr. W. A. McFarland, Superintendent of the Water Department, and the inadequacy of the salary attached to his office. This officer has been in the District service less than a year, and in the cost of labor of laying mains alone has, with the efficient assistance of the foreman, Mr. John Fitzgerald, saved to the department $9,800 on the amount of work done, as compared with the cost of similar work during the previous year. The salary of the Superintendent ($1,800 per annum) is entirely insufficient to long retain the services of a man competent to fill the position, and should be increased to $2,400, to at least place it on an equality with other positions in the District service of no greater importance and responsibility. No other city of equal size pays as little as $2,400 to such an official. It should be noted that, in addition to his regular duties, the Superintenden rendered efficient service to the Commissioners in other directions.

2

MIDDLE AND HIGH SERVICE.

About 90 per cent of the water furnished in the District of Columbia is supplied by gravity to the Low-Service area. The distributing reservoir for this area has a water level of 146 feet above mean high water, and gives a fair service when the mains are not overtaxed to localities as high as 100 feet above datum. Under conditions such as exist at present, with the supply mains overtaxed, the service in all localities between 85 and 100 feet above datum is at times very inadequate. Much of Georgetown, a small portion of Washington, and the greater part of the District of Columbia lie above the level of 100 feet above datum, and for these areas the supply of water has to be pumped. A considerable part of the northwest section of Washington lies between 85 and 100 feet above datum, and in this area under present conditions the water supply from the gravity system is precarious. At times it is inadequate on account of the overtaxing of the 48-inch main and the resulting loss of pressure. The middle service has during the past year been extended to include some small portions of this area, and with increased pumping and reservoir facilities it is expected to make further extensions in the future, and until the general supply of water is increased or waste decreased.

On account of the great variation in the elevation of the different parts of the District of Columbia the pump service of water distribution has been divided into a High and a Middle Service. The High Service is intended to supply those areas of the District which lie above the level of 210 feet above datum, and the Middle Service those areas between the levels of 100 and 210 feet above datum. The Middle Service area covers much of Georgetown, a part of Washington, and the suburban districts between Rock Creek and the Soldiers' Home and to the eastward of the Soldiers' Home. Population and improvements are rapidly increasing in this area, with an increasing demand for water facilities.

Until recently two pumping stations have been maintained for supplying this area. The Georgetown station was closed in 1893, although held in readiness for emergencies, and the entire area is now supplied from the pumping station on U street, between Sixteenth and Seventeenth streets NW. All pumping plant for the High-Service areas will be concentrated at this station, and increased as the demand grows.

The act of March 3, 1893, and subsequent acts making appropriations for this department have appropriated for extending the High-Service system of water distribution so much as may be available in the water fund after providing for the other expenditures authorized in the same acts. Under these appropriations much-needed extensions and improvements in the High-Service system have been made. The High or Reno Service is now in excellent condition, with ample capacity in force mains, pumps, and reservoirs for some years to come. With the completion of the 8,000,000-gallon engine under contract the same may be said of the Middle Service extension as to the reservoirs. The only reservoir on this service is a small one at Thirty-second and U streets, Georgetown, the property of the United States and under the control of its officers. This reservoir has not sufficient capacity, holding only about six hours' supply, and is too low for good service for all points of the system. Although kept filled as a small reserve, it is cut out of the service. A reservoir at about elevation 265 above datum, with 30,000,000 gallons capacity, is much needed as a precaution against stoppages in the service from accidents to mains or pump-

ing machinery. The funds for the construction of such a reservoir are available, but the only suitable site is within the limits of Rock Creek Park, and can not be occupied without Congressional action. The necessary legislation will be requested during the coming session.

The 8,000,000-gallon engine contracted for during the previous year with the Barr Pumping Engine Company, of Philadelphia, has been completed, and run, more or less, in regular service. The capacity of the 5,000,000-gallon Nordberg engine has been increased to 7,000,000 gallons daily. The old 2,500,000 Gaskell engine has been converted for use in the High or Reno Service with a capacity of about 1,200,000 gallons daily. A small shop has been fitted up at the pumping station with machine tools sufficient to make all small repairs to pumping machinery and other plant, and many small improvements have been made.

Details of the routine work of the Department, including tables showing the pumpage in the High and Middle Services, will be found in the report of the Superintendent. The pumpage in both services has increased considerably during the year on account of the extension of High-Service mains to Tacoma Park and other points heretofore without water facilities, and to the extension of the Middle Service so as to include considerable areas of Low Service in which the pressure was insufficient to furnish a fair supply.

REVENUE AND INSPECTION BRANCH OF THE WATER DEPARTMENT.

The following statement shows the receipts and expenditures of the Water Department for the fiscal year ending June 30, 1897:

Financial statement for fiscal year 1896–97.

RECEIPTS.

Water tax:		
Current tax	$48,512.13	
Advertised tax	2,429.48	
		$50,941.61
Interest:		
On current tax	1,906.48	
On advertised tax	805.30	
		2,711.78
Water rent		253,500.16
Water taps for service		5,157.00
Water for building purposes, etc		1,128.28
		313,438.83

EXPENDITURES.

Salaries		36,371.25
Contingent expenses		a 2,528.68
Refunds, water rents		780.14
Pumping expenses and pipe distribution		b 37,929.27
High service		86,794.66
Interest and sinking fund on account of increasing water supply	$13,640.75	
Interest and sinking fund on account of water-stock bonds	40,927.06	
Interest and sinking fund on account of Fourteenth street and 48-inch mains	7,457.00	
Total interest and sinking fund		62,024.81
Interest and sinking fund on account of increasing water supply:		
Interest	$2,710.11	
Sinking fund	3,831.54	
	c 6,541.65	
Total expenditures		276,428.81
Water tax levied during the year		93,473.98
Water-tax arrears June 30, 1897, amount collectible		158,474.06
Total amount standing to credit of water fund June 30, 1897		97,153.32

a Of this amount $616.95 was paid on account of 1896.
b Of this amount $2,533.37 was paid on account of 1896.
c This item of $6,541.65 was not advanced to the Treasurer United States until after the close of fiscal year and is not included in expenditures.

Comparative statement of revenues.

Fiscal year.	Water rents.	Water-main assessments.	Taps.	Permits, etc.	Total revenues.
.....	$188,528.20	$20,578.88	$3,402.00	$3,076.09	$145,585.17
.....	124,896.22	36,162.04	5,096.00	3,459.03	169,613.29
.....	138,539.49	47,183.24	6,012.00	4,846.45	196,581.18
.....	171,892.49	34,264.85	4,182.00	4,809.92	215,149.26
.....	189,407.30	46,280.58	5,190.00	5,576.16	246,454.13
.....	197,053.34	45,386.55	5,313.72	6,327.95	254,081.56
.....	209,664.29	50,332.98	5,640.00	6,869.79	272,497.01
.....	220,892.93	68,807.35	5,790.00	6,280.81	301,771.09
.....	235,911.25	70,026.33	7,307.09	7,931.71	221,176.38
.....	245,899.69	86,975.44	4,497.00	1,168.79	338,540.92
.....	251,872.71	72,972.24	4,537.55	2,100.60	331,483.10
.....	255,439.11	27,666.57	4,026.00	1,191.09	288,323.77
.....	253,500.16	53,653.39	5,157.00	1,128.28	313,438.83
.....	a 260,000.00	60,000.00	7,000.00	1,200.00	328,200.00
.....	a 265,000.00	60,000.00	8,000.00	1,200.00	333,200.00

a Estimated.

water fund June 30, 1897	$97,153.32
receipts, 1898	328,200.00
l	425,353.32
expenditures, 1898	300,000.00
balance available June 30, 1898	125,353.32
receipts, 1898	333,200.00
nated total available 1899	458,553.32

eceipts during the year show some recovery from the effects lecision affecting the validity of outstanding water-main taxes. tion looking to the reassessment of much of the invalidated nd to the amendment of the assessment laws in so far as relates ıbdivided county property passed both Houses of Congress at session, but reached the President too late to receive his al. Its reenactment should be requested at the coming session. ng the year the number of water meters in service was increased 4 to 777, an addition of 203. Compliance with the act of July), requiring all hotels, livery stables, manufacturing establish- and other places using a large quantity of water to take their through meters, was rigidly enforced, and all such premises are etered. The effect of this metering has been shown previously, thority for the extension of the meter system is requested. ıumber, sizes, and kinds of meters in service on June 30, 1897, wn in the following table:

Meters.

e.	Worthington.	Thomson.	Crown.	Nash.	Buffalo.	Union.	Niagara.	Lambert	Total.
.....	.....	3	1	4	.....	1	.....	.....	9
.....	5	79	4	88	1	24	.....	2	203
.....	.....	2	.....	.....	.....	.....	.....	.....	2
.....	15	79	21	119	.....	33	1	.....	268
.....	16	48	26	60	.....	4	1	1	156
.....	21	19	11	35	.....	7	.....	.....	93
.....	12	5	7	7	.....	2	.....	.....	33
.....	3	3	.....	1	.....	.....	.....	.....	7
.....	.....	1	3	2	.....	.....	.....	.....	6
l.....	72	239	73	316	1	71	2	3	777

PUBLIC PUMPS AND WELLS.

ıppropriation for public pumps and wells was for the previous creased from $4,000 to $8,500, and authority given for the driv- leep wells. Under this appropriation and that for the present

year, the latter becoming available March 3, 1897, 20 deep wells have been driven with fairly good success. These wells are 6 inches in diameter and are cased with heavy wrought-iron drive pipe driven into the solid rock so as to exclude all surface or seepage water, or driven until water is found after passing a thick water-tight stratum of clay. While the quantity of water obtained has varied with the locality, it has, excepting in two instances, been ample for the desired use, and in all but 2 wells the water has been of good quality. As is to be expected from the new wrought-iron casing, thoroughly polished in driving the well, the water contains in many cases a decided evidence of iron, but with the rusting of the casing and the use of the wells this should disappear. The continuance of the appropriation for driving these wells is recommended.

Of the old shallow wells, 133 were in use at the end of the year, and 11 had been closed upon being reported contaminated. As stated in previous reports, these wells, supplied as they are by surface and seepage water, will no doubt all be closed before many years pass, and their replacement by deep wells to furnish a supply of cool water should be continued so long as the deep wells prove successful.

STREET LIGHTING.

At the close of the fiscal year the streets, avenues, alleys, and roads of the District were lighted by 508 1,000-candlepower electric arc lamps, 214 25-candlepower incandescent electric lamps, 6,053 gas lamps, and 1,077 naphtha lamps. As compared with the previous year the increases were 160 arc lamps, 144 incandescent lamps, 178 gas lamps, and 13 naphtha lamps.

The service was much improved by the abandonment of the so-called moonlight schedule of lighting for gas lamps and the adoption of all night and every night lighting. The service has generally been as satisfactory as the appropriations and statutory limitations will permit. The streets of Washington are most difficult to light. The heavy shade from the numerous trees at the curb line makes the use of high candlepower arc lamps spaced at long intervals generally unsuitable. Insufficient appropriations and statutory limitations prevent the erection of such lamps on all business and rapid-transit streets, where the need for them is greatest. The use of the arc lamp on resident streets should be avoided as far as possible. In the summer months they cause great annoyance to the people by reason of their great brilliancy and the insects attracted by them. Under the existing law their use is unavoidable in streets in which the low-power gas lamps fail to furnish sufficient light. Without doubt a lamp can be found that will give the greater illumination that is necessary in many important residential streets at a cost less than that of arc lamps and without the objectionable features of the latter. It is recommended that $3,000 of the annual appropriation be made available for experimental lighting with improved lamps unrestricted as to cost per lamp and hourly consumption of gas.

A marked increase is requested in the appropriations for street lighting. The existing service is not satisfactory or in keeping with the standards maintained in other branches of the city government. Nearly all the city streets and avenues are but dimly lighted and some streets and populous alleys are not lighted at all. In many of the suburbs improvements are rapidly going forward and appropriations are not sufficient to furnish all the necessary lamps even in

tion is invited to the full report of Inspector W. C. Allen upon
ject.
eed of a department of electrical control is much felt in the
tration of such affairs relating to electric wires as come under
al control. The creation of such a department has been
lly recommended and the recommendation is now renewed.
nt such work as must be done by the municipal authorities in
rvision of electrical wires and the enforcement of laws relat-
eto is performed by officials of other departments in addition
regular duties, much of it falling upon the street-lighting
ent. Notwithstanding this serious handicap, the conditions
upervision have much improved during the year. Systematic
on of old and new work has been carried on, and a set of plats
all existing overhead wires and underground systems for
lighting and power purposes has been carefully prepared.
n's report contains full information of the work done during
, of all existing wires and conduits as nearly as can now be
ned, and a complete compilation of the statutes and decisions
ubject that has been a fruitful source of contention.
al and systematic legislation upon the subject of the removal
ead wires and the provision of underground conduits for their
n should be requested of Congress at its next session. The
conditions are recognized by all interested parties as but
ry. They are restrictive of growth in many directions in
lectric light and power facilities should be extended and make
sion at all for the removal of existing unsightly and obstruc-
ses of overhead wires.

INSPECTOR OF GAS AND METERS.

are four laboratories for testing the gas supplied by the two
panies. The gas supplied by the Washington Gaslight Com-
tested at 403 Tenth street NW., 1335 Fourteenth street NW.,
h and D streets SE. The gas furnished by the Georgetown

BUILDINGS AND BUILDING INSPECTION.

During the year building and repair permits to the number of 3,852 were issued, the total estimated cost of the improvements being $4,102,598.75. Three hundred and fifty-five special applications for projections were acted upon, and 354 approved. Four thousand eight hundred and seventy-four inspections and other actions of all kinds with regard to buildings were executed during the year.

The inspection work of this office is of the utmost importance to the general public. With the most exacting and carefully drawn building regulations, it is impossible to obtain good, safe, and substantial construction in all cases without close inspection of all buildings under construction and repair. The force of the office is not sufficient to enable such inspection to be made of all buildings as frequently as is found to be necessary, and an increased number of assistant inspectors is an absolute necessity to secure the people from unsafe and unwise methods of construction, and to render prompt service to the public having business with the office.

Plans were prepared in this office for such municipal buildings as had been authorized and the construction of numerous buildings has been carried forward, in some cases to completion. The preparation of these plans requires much time from the inadequate force of the office, and the consensus of opinion with regard to the designing of public buildings leans strongly toward the employment of outside talent upon such work, by competition or otherwise. The adoption of such a system for the procurement of designs for District buildings is strongly recommended, and legislation toward that end will be requested later. The method heretofore followed of appropriating equal amounts for buildings of the same character and the sites therefor, irrespective of the locality, does not give the best results. In localities where property is the highest and where, if any difference is made, the building should be the more elaborate, the sum available for its construction is the least, and scrimping in one form or another must be resorted to. The amounts appropriated for the construction of a number of buildings of the same class should be furnished in a lump sum to be allotted by the Commissioners under such restrictions as Congress may deem it wise to impose. Appropriations for sites should be made independent of those for buildings and graded according to the value of the ground in the localities selected.

For full details of the work of the Building Inspector's office, reference should be made to his report appended hereto.

OFFICE OF THE SURVEYOR.

Since the end of the fiscal year Mr. William Forsyth, surveyor of the District of Columbia, has severed his connection with this office, after nearly fifty years of faithful and efficient service. The Commissioners accepted his resignation in August with regret, and he retires with the best wishes of all with whom he has come in contact during his long service of the public. Mr. Henry B. Looker, his former assistant, has been promoted to the office vacated by Mr. Forsyth.

Mr. Forsyth's last annual report, appended hereto, contains full details of the transactions of his office and valuable recommendations looking toward the better establishment of property lines in certain sections of the District.

ontrol of streets is an admirable one, and depends for its suc-
ılmost entirely upon the amount of money set aside annually
ı support. Recently the appropriations have not been such as
nable the commission to properly care for existing trees, replant
where destroyed by storms or decay, and comply with the urgent
sts of citizens for tree planting in new sections. As a nec-
ı result, the trees have to too great an extent been neglected,
t has not been possible to properly trim and cultivate them and
ɔt certain varieties from insects. In some localities the trees,
ıd of adding to the attractiveness of the city, are a detraction
from.

tain varieties of trees that were planted in years past have
d to be of an objectionable character and should be removed as
ly as they can be replaced by more desirable species. Chief
g these are the poplars, which are of rapid growth, but are very
ıctive to sidewalks and sewers and productive of many com-
ts. Many of the other rapid-growing trees have about reached
mit of their usefulness and should also be replaced. Funds
d be available for destroying insects that infest some of the trees
·tain seasons and seriously injure them.

ɛ storms of the past year were unusually severe upon the trees.
housand one hundred and forty-one trees were blown down by
orm of September 29, 1896. Others were so badly injured as to
the total loss about 1,400. The loss and expense caused by this
ı was so great that, even with a deficiency appropriation of
0, it was not possible to bring the work up to date during the

One thousand four hundred and fifty-five trees were planted,
ge portion of them being placed in Columbia Heights, on Con-
ɛut avenue extended, and in Cleveland Park. Current work
he young trees in nursery received the usual attention. A fine
of trees is now available for planting, and with sufficient funds
vacant tree spaces can be filled and all trees be given the atten-
ıecessary to make them of the greatest benefit to the people of
ity.

ɐ report of the superintendent of parking is appended hereto.

Number of assistant engineers, inspectors, foremen, and other employees, regular and temporary, and appropriations from which paid in the first division for the year ending June 30, 1897.

Appropriations from which paid.	Assistant engineer.	Inspectors.	Foremen.	Other employees.	Total.
Pumping expenses and pipe distribution, 1897	.. ....	1	4	239	$46,903.03
Extension of high-service system water distribution, 1897	1	1	3	217	22,598.25
Purchase and repair of pumps, 1897	.. ....	1	2	14	3,554.38
Purchase and repair of pumps, 1898	.....	1	1	11	440.31
Street lighting, 1897	.....	.....	.....	2	101.31
Electric lighting, 1897	.....	6	.....	.....	2,654.50
Permit work (under direction of the street-lighting division)	.....	5	.....	.....	720.00
Parking commission, 1897	.....	.....	3	94	20,709.72
Surveyor's office, 1897	.....	.....	.....	6	4,859.50
Inspector of buildings, on account of:					
Public schools	.....	6	.....	5	4,551.00
Fire department	.....	2	.....	5	1,408.00
Reformatories and prisons	.....	.....	.....	5	100.00
Total	1	23	13	598	108,578.00

REPORT OF THE SUPERINTENDENT OF THE WATER DEPARTMENT.

SIR: I have the honor to submit the following summary of work done in the distribution branch of the water department of the District of Columbia for the fiscal year ending June 30, 1897.

Mains laid.—Detailed statements of sizes, lengths, locations, and costs of mains laid, of valves placed, hydrants erected, etc., will be found in Tables V, VI, VII, VIII, and IX, herewith, and of mean daily consumption of water in the middle and upper high service in Tables XI and XII. The aggregate length of all sizes, both for main extensions, fire hydrant connections, etc., is 94,015 feet. Of this amount, the 2,180 feet of 20-inch main on Florida avenue NW., from U street east to Fifteenth street, was laid to provide direct connection, independent of the mains on U street, between the mains on the west side of the pumping station and those on the east. Two thousand seven hundred and ninety-two feet of 6-inch mains were lowered an average of about 4 feet, to meet the requirements of the new grade on streets under improvement.

A number of extensions of the upper high service were made into areas formerly supplied by gravity, but which, owing to their elevation, were often left with pressure wholly inadequate. These extensions include the south side of U street from Fourteenth to Fifteenth street NW.; both sides of Fourteenth street from U south to R street; the east side of Nineteenth from Florida avenue to S street NW.; the west side of Nineteenth street for about 200 feet south from R street NW.; both sides of O street between Twenty-ninth and Thirtieth streets, Georgetown, and U street and Florida avenue east from Fourth street W. to Twelfth street NE., along Mount Olivet road to Bladensburg road and south on the latter a distance of 300 feet. This change of service increased the pressure on the mains in question by about 50 pounds per square inch at the lower points. No trouble resulted except the starting of a number of leaks, due to defective joints in the 6-inch main on the east side of Fourteenth street from U to R.

The extension of the middle high service eastward along Florida avenue made possible a much-needed reenforcement at Florida avenue and R street NW. of the 6-inch mains supplying Eckington, Brookland, and vicinity. A still further reenforcement of the supply to this section by means of an extension and completion of the 12-inch main now ending at First and Albany streets NW. is much to be desired. Though the static pressures through this section are ample, the volume of water available for fire purposes is insufficient.

On the upper high service a 6-inch main has been extended from the Brightwood road to and through Takoma Park, giving this place an ample supply, with a static pressure of about 60 pounds per square inch.

The water supply to the various parts of the District is now fairly satisfactory in quantity, with the exception of that to the higher points of the low-service area: the supply here is insufficient, and gives rise to much complaint; the only remedies available are the extension of the middle high service to include these areas (which can not be done without an increase in the pumping capacity of the station),

Columbia as the proper authorities may determine. These wells to be of
ter of not less than 6 inches and cased where not driven in rock, with best
lap-welded, heavy, drive pipe having a normal inside diameter of 6
Where the well enters the rock the casing to be driven into the rock far
to form a water-tight joint and exclude all seepage water. Under this
t and a subsequent extension of the same wells were driven as indicated in
owing table (XVI). Number of wells, 20; total aggregate depth drilled,
et; total depth drilled in rock, 621 feet; average cost per well, including
ing and erection of pump, $353.78.

pumps at first used with these wells, built wholly of iron, gave much
owing to frequent breakages, and also to the difficulty of access to the
hamber. Subsequently a wooden-stock pump was adopted, from the lift
which the rod, plunger and foot valve can be readily withdrawn. While
been in use but a short time, it is believed that it will prove satisfactory.
this be the case the iron pumps, as they become disabled in use, will be
l by the later type.

eet pumping station.—The work at the U street station has consisted
in the completion of the new building, the erection complete of two new
ell and Zell water-tube boilers, and of a vertical triple-expansion pumping
of 8,000,000 gallons daily capacity, the furnishing of a small machine
r the execution of minor repairs to machinery and of miscellaneous work
Department, the paving of the roadway in the property yard, painting of
erection of wagon shed, etc.

otal normal pumping capacity of the U street pumping station at the
time is 17,900,000 gallons, distributed as follows:

iple expansion vertical	8,000,000
rg triple expansion horizontal	7,000,000
compound horizontal	2,500,000
uplex compound	400,000

amounts can be incressed by about 25 per cent by speeding the engines
heir normal capacity, with a probable decrease in efficiency.

apacity of the Nordberg engine as built was 5,000,000 gallons against a
e of about 150 pounds per square inch, it having been designed for use on
er high service. As this is at present, and will be for some time to come,
ly on the middle high service against a pressure of 65 pounds per square
was decided to add to the capacity by increasing the diameter of the water
s from 10 to 11¼ inches. This has been done and the result found quite
tory.

Barr, Nordberg, and Gaskill engines are at present all connected with the
high service mains, and only the small compound duplex with those of the
igh service. It is intended, however, to reduce the diameter of the water
s of the Gaskill compound at an early date, and to place this pumping-

The machine shop above referred to is at present furnished with the following machine tools: Sellers planer, 20 by 20 inches by 5-foot stroke; Hendey-Norton lathe, 14 inches by 6 feet; drill press, 18-inch swing; Gould and Eberhardt shaper, 14-inch stroke; Worcester twist drill grinder and emery grinder, two 14-inch wheels. Power is furnished by a vertical slide-valve engine, cylinder 5 by 7 inches, supplied with steam from the main boilers.

Much annoyance having been caused by the emission of heavy smoke from the pump house stack, an effort was made to abate the nuisance by blowing a jet of combined steam and air over the furnace fire by means of injection pipes penetrating the furnace front just above the fire doors. This device has proved fairly efficient, having reduced the amount of smoke, as nearly as may be estimated, by about 90 per cent.

The Georgetown pumping station, containing a Knowles and a Blake pump having a combined capacity of about 5,000,000 gallons in twenty-four hours, is held in readiness for use should the pumps at the U street station be disabled.

The 4,500,000-gallon reservoir at Reno, supplying the upper high service area, has been in constant use during the year. As indicated by the table, herewith, of mean daily consumption on this service, the reserve is sufficient for at least one month. The level in the reservoir, however, is maintained between 12 and 14 feet gauge, the latter height being that of the overflow.

Very respectfully, your obedient servant,

W. A. McFARLAND,
Superintendent Water Department.

The ENGINEER COMMISSIONER, DISTRICT OF COLUMBIA.

TABLE I.—*Pressures on the line of the 30-inch main, the water in the reservoir standing at 146 feet above datum on February 27, 1890; at 145 feet above datum on June 27, 1890; at 145.8 feet above datum on August 7, 1896, and at 146 feet above datum on July 28, 1897.*

Location.	Elevation of locality.	February 27, 1890.			June 27, 1890.		
		Pressure.		Elevation of water above datum.	Pressure.		Elevation of water above datum.
	Feet.	*Lbs.*	*Feet.*	*Feet.*	*Lbs.*	*Feet.*	*Feet.*
K and Twenty-fourth streets	64.3	20	46.2	110.5	26¼	61.2	125.5
K and Twenty-second streets	65.7	19	44	109.7	27	62.3	128
K and Twenty-first streets *a*	57.3	25	57.7	115	32	73.9	131.2
K and Twentieth streets	61.7	21	48.5	110.2	30	69.3	131
K and Eighteenth streets *a*	67.2	21	48.5	115.7	27½	63.5	130.7
K street and Connecticut avenue *a*	57.8	25	57.7	115.5	31	71.6	129.4
K and Seventeenth streets *a*	55.5	25	57.7	113.1	30	69.3	124.7
K and Sixteenth streets	53.8	22	50.8	104.6	31	71.6	125.4
K street and Vermont avenue *a*	63.2	21	48.5	111.7	25½	58.8	122
K and Fourteenth streets *a*	63.4	21	48.5	111.9	24½	56.6	120
K and Thirteenth streets *a*	77.2	15	34.6	111.8	17½	40.4	117.6
K and Twelfth streets *a*	74.1	15	34.6	108.7	18½	42.7	116.8
K and Eleventh streets	67.8	13	30	97.8	20	46.2	114
K and Tenth streets	66.2	15	34.6	100.8	22½	51.5	117.7
K and Eighth streets	58.1	17	39.3	97.4	24	55.4	113.5
Massachusetts avenue and Sixth street					28	64.6	121.3
Massachusetts avenue and Fifth street					28½	65.8	118.2
Massachusetts avenue and Fourth street					30	69.3	118.5
Massachusetts avenue and Second street					31½	72.8	114.7

a The water was supplied on February 27, 1890, to the hydrants from the 36-inch main on L street. The observations June 27, 1790, were after the introduction of water into the 48-inch main and after the city had been divided into high and low service areas.

LE I.—*Pressures on the line of the 30-inch main, etc.*—Continued.

Location.	August 7, 1896.			July 28, 1897.		
	Pressure.		Elevation of water above datum.	Pressure.		Elevation of water above datum.
	Lbs.	*Feet.*	*Feet.*	*Lbs.*	*Feet.*	*Feet.*
ıty-fourth streets	20½	46.77	111.07	23½	54.62	119
ıty-second streets	22½	51.39	117.09	23½	53.47	117.91
ıty-first streets *a*	28½	65.83	123.13	29½	67.27	123.52
ıtieth streets	26	60.06	121.76	26½	61.52	122.25
teenth streets *a*	22½	51.97	119.17	24	55.20	121.27
l Connecticut avenue *a*	26	60.06	117.86			
ıteenth streets *a*	30½	70.45	*b* 125.95	28	64.40	119.19
enth streets	27	62.37	116.17	25	57.50	111.37
l Vermont avenue *a*	21½	50.24	113.44	21	48.30	112.51
teenth streets *a*	22½	51.39	114.79	23	52.90	117.50
eenth streets *a*	14½	33.49	110.69	21	48.30	*b* 126.87
fth streets *a*	15½	36.38	110.48	21	48.30	*b* 124.87
nth streets	18½	42.15	109.95	19	43.70	110.16
h streets	19½	45.62	111.82	21	46	113.10
th streets	21½	49.08	107.18	22	50.60	109.22
tts avenue and Sixth	25½	59.48	116.18			
tts avenue and Fifth	26½	61.79	114.19	27½	62.10	112.95
ts avenue and Fourth	26½	61.79	110.99			
tts avenue and Second	28½	65.83	107.73	29½	67.85	110.27

er was supplied on February 27, 1890, to the hydrants from the 36-inch main on L
observations June 27, 1890, were after the introduction of water into the 48-inch
ter the city had been divided into high and low service areas.
h main.

—*Pressures on the line of the 36-inch main, the water in the reservoir at 146 feet above datum on February 27, 1890, at 145 feet above datum on , 1890, at 145.8 feet above datum on August 7, 1896, and 146 feet above n July 28, 1897.*

Location.	Elevation of locality.	February 27, 1890.			June 27, 1890.		
		Pressure.		Elevation of water above datum.	Pressure.		Elevation of water above datum.
	Feet.	*Lbs.*	*Feet.*	*Feet.*	*Lbs.*	*Feet.*	*Feet.*
ıty-fourth streets	65.8	24	55.4	120.2	28	64.6	130.4
teenth streets	51.7	26	60	111.7	32½	75	126.7
teenth streets	55.4	26	60	112.4	32	73.9	129.3
nth streets	72.9	17	39.2	112.1	23½	54.2	127.1
streets	62.9	20	46.1	109	31	71.6	134.5
l New Jersey avenue	49.8	26	60	109	30½	70.4	120.2

Location.	August 7, 1896.			July 28, 1897.		
	Pressure.		Elevation of water above datum.	Pressure.		Elevation of water above datum.
	Pounds.	*Feet.*	*Feet.*	*Pounds.*	*Feet.*	*Feet.*
ıty-fourth streets	30	69.30	135.10	28½	64.40	*a* 132.34
teenth streets	29	66.99	118.69	29½	68.42	121.41
teenth streets	26½	61.79	117.19	28	64.40	121.11
nth streets	19½	44.46	117.36	19½	44.85	118.19
streets	24	55.44	118.34	23½	54.05	118.95
d New Jersey avenue	26½	61.79	111.59			

ch main.
he pressures of February 27, 1890, were before the introduction of water into the
n. The pressures of June 27, 1890, were after its introduction and after the division
into high and low service areas.

TABLE III.—*Pressures on the line of the 48-inch main, the water in the reservoir standing at 145 feet above datum on June 27, 1890; at 145.8 feet above datum on June 27, 1890; at 145.8 feet above datum on August 7, 1896, and at 146 feet above datum on July 28, 1897.*

Location.	Elevation of locality.	June 27, 1890.		August 7, 1896.		July 28, 1897.	
		Pressure.	Elevation of water above datum.	Pressure.	Elevation of water above datum.	Pressure.	Elevation of water above datum.
	Feet.	*Lbs.*	*Feet.*	*Lbs.*	*Feet.*	*Lbs.*	*Feet.*
R and Fourth streets	76	27	62.3	138.3	21¼ 49.66	125.66	22 50.60	125.95
R street and New Jersey avenue	77	27	62.3	139.3	21¼ 49.08	126.08	22¼ 51.17	128.57
R and Fifth streets	75.7	27¼	63.5	139.2	21¼ 49.66	125.36	22 50.60	125.46
R and Seventh streets	79.2	20¼	61.2	140.4	20¼ 47.93	127.13	.....	.....
R and Eighth streets	79.3	26	60	139.3	20¼ 47.35	126.65	20¼ 46.57	126
R and Ninth streets	79.4	25¼	58.8	138.2	20 46.20	125.60	19¼ 45.42	125.22
R, Ninth, and Tenth streets	81	25¼	58.8	139.8	19¼ 44.46	125.46	19 43.70	125.30
R and Tenth streets	82.6	25	57.7	140.3	19 43.89	126.49	19¼ 45.42	128.22
R and Eleventh streets	86.6	23¼	54.2	140.8	17¼ 39.84	126.44	17 39.10	126.02
R street and Vermont avenue	90.2	22	50.8	141	16¼ 38.11	128.31	17¼ 40.25	130.25
R and Thirteenth streets	96.2	18¼	42.7	138.9	13¼ 30.60	126.80	.....	.....
R and Fourteenth streets	102	16¼	38.1	140.1	10¾ 24.83	126.83	.....	.....
R and Fifteenth streets	91.7	21	48.5	140.2	15¼ 35.80	127.50	16 36.80	129.05
R and Sixteenth streets	88.1	23	53.1	141.2	17 39.27	127.37	19 43.90	132.08
R and Seventeenth streets	86.5	25	57.7	144.2	19¼ 45.02	132.12	21 48.30	131.01
New Hampshire avenue and Q street	86.4	23¼	54.2	140.6	18 41.58	127.98	18 41.40	128.90
New Hampshire avenue and Dupont Circle	88.4	23	53.1	141.5	17¼ 39.84	128.24	17¼ 40.82	129.82
New Hampshire avenue and N street	76.3	28	64.6	140.9	23¼ 54.86	131.16	23¼ 54.05	130.07
New Hampshire avenue and M street	60.2	36	83.1	143.3	32 73.92	134.12	.....	.....
M and Twenty-second streets	58.9	35	80.8	139.7	31¼ 72.18	131.08	33 73.60	133.27
M and Twenty-third streets	61.4	33¼	77.3	138.7	30¼ 69.87	131.27	31 71.30	133.31
M and Twenty-fourth streets	63.7	33	76.2	139.9	31¼ 72.18	135.88	31 71.30	135.13

TABLE IV.—*Pressures on East Capitol street before and after the introduction of water into the 48-inch main.*

Location.	Elevation of locality.	Before the introduction of water into the 48-inch main the water in the distributing reservoir standing at 146 feet above datum.			At the end of the fiscal year ending June 30, 1890, the water in the distributing reservoir standing at 145 feet above datum.		
		Pressure.		Elevation of water above datum.	Pressure.		Elevation of water above datum.
	Feet.	*Lbs.*	*Feet.*	*Feet.*	*Lbs.*	*Feet.*	*Feet.*
East Capitol and Second streets	93	4	9.2	102.2	15	24.6	127.6
East Capitol and Third streets	94	3½	8.1	102.1	15½	35.8	129.8
East Capitol and Fifth streets	88.5	6	13.9	102.4	16½	38.1	126.6
East Capitol and Sixth streets	86.2	6½	15	101.2	17½	40.4	126.6
East Capitol and Seventh streets	81.4	8	18.5	99.9	20	46.2	127.6
East Capitol and Ninth streets	83.8	8½	19.7	103.5	20	46.2	130
East Capitol and Eleventh streets	86	6½	15	101	18½	42.7	128.7

TABLE IV.—*Pressures on East Capitol street, etc.*—Continued.

Location.	August 7, 1896, the water in the distributing reservoir standing at 145.8 feet above datum.			July 28, 1897, the water in the distributing reservoir standing at 146 feet above datum.		
	Pressure.		Elevation of water above datum.	Pressure.		Elevation of water above datum.
	Lbs.	*Feet.*	*Feet.*	*Lbs.*	*Feet.*	*Feet.*
itol and Second streets	12¼	29.45	122.45	13	29.90	123.74
itol and Third streets	12¼	28.29	122.29	13	29.90	123.87
itol and Fifth streets	14	32.34	120.84	13¾	31.05	120.37
itol and Sixth streets	14¼	34.07	120.24	14	32.20	118.47
itol and Seventh streets	16¼	38.69	120.09	17	39.10	121.03
itol and Ninth streets	16¼	37.53	121.33	15¼	35.65	119.37
itol and Eleventh streets	15¼	35.22	121.22	14¼	33.35	119.79

TABLE V.—*Mains laid during the year, and miscellaneous work.*

New mains laid.	Linear feet.	New mains laid.	Linear feet.
diameter	2,180.50	1¼ inches diameter	2,103.80
diameter	6,877.27	Connections to fire hydrants	695.60
liameter	70,063.19	Intersections and connections	722
liameter	10,380.65	Mains lowered	2,792
liameter	992.40		

› valves	270	Public hydrants repaired	827
‹es repaired	78	Fountains erected	3
dings adjusted to grade	26	Fountains abandoned	1
rants erected	50	Fountains to replace old ones	2
rants moved	14	Fountains adjusted to grade	1
rants adjusted to grade	1	Fountains repaired	132
rants repaired	971	Wells filled	11
ydrants erected	8	Wells cleaned	5
ydrants abandoned	7	Pumps repaired	653
ydrants adjusted to grade	7	Taps made	1,646
ydrants to replace old ones	5		

TABLE VI.—*Summary statement of the distribution system.*

	In service prior to June 30, 1896.	Added during the fiscal year.	Total June 30, 1897.
	Linear feet.	*Linear feet.*	*Linear feet.*
diameter	662		662
diameter	29,736		29,736
diameter	23,245		23,245
diameter	36,719		36,719
diameter	21,569.75		21,569.75
diameter	32,406.50	2,180.50	34,587
diameter	2,500		2,500
diameter	172,679	6,877.27	179,556.27
diameter	12,141		12,141
liameter	5,925		5,925
liameter	1,170,098.76	*a* 70,570.89	*b* 1,239,229.65
liameter	50,174.75	*a* 10,594.35	60,769.10
liameter	53,963.70	992.40	54,956.10
diameter		2,103.80	2,103.80
nnections to fire hydrants	32,627.95	695.60	33,323.55
diameter and smaller	108,030		108,030
	1,752,478.41	94,014.81	1,846,493.22
	Number.	*Number.*	*Number.*
ves	2,997	270	3,267
rants	1,757	50	1,807
ydrants	328	8	*c* 329
connections	44,818	118	44,936
	57,586	1,646	59,232
ells, deep driven		21	21
ells, shallow	145		*d* 134
untains	71	3	*e* 73

ding 1,836.55 feet of 6-inch and 3,656 feet of 4-inch laid under the permit system.
feet abandoned on Columbia road on account of laying new main for the Metropolitan oad Company.
lic hydrants abandoned. *d* 11 wells filled. *e* 1 horse fountain abandoned.

TABLE VII.—*Statement showing cost of water mains laid during the fiscal y 1896–97.*

Street.	Streets between—	Size.	Length.	Cost of material.	Cost of labor.	To co
		Inches	*Lin. feet.*			
North side Providence, Brookland.	Thirteenth and Fifteenth.	1½	1,095.1	$90.45	$110.06	$2
Center Lansing, Brookland.	Fourteenth and Sixteenth.	1½	806.7	50.10	70.19	1
North side Providence, Brookland.	East of Fifteenth and west of Fifteenth.	1½	202	11.74	26.00	
Alley, square 581		3	326.9	98.57	138.75	2
Alley, square 544		3	329	84.43	124.99	2
Alley, square 358		3	298.5	118.58	150.61	2
Alley, square 449		4	810.4	190.61	375.46	5
Alley, square 367		4	112	64.45	43.00	1
Alley, square 500		4	215	123.77	171.17	2
Alley, square 68		4	283.4	102.68	114.06	2
Alley, square 586		4	174	88.02	120.91	2
Alley, square 534		4	186	42.35	68.88	1
Alley, square 1042		4	275.4	93.85	121.94	2
Alley, square 457		4	430.69	143.44	221.92	3
Alley, square 1041		4	617.35	169.12	156.25	3
Alley, square 192		4	199.7	87.71	66.22	1
Alley, square 776		4	236	64.93	90.91	1
Alley, square 1269		4	303.35	114.81	120.79	2
Alley, square S. 915		4	157.3	61.05	48.69	1
Alley, square 1020		4	35	11.74	19.12	
Alley, square 534		4	208.4	60.32	85.12	1
Alley, square 500		4	300	70.61	68.51	1
Alley, square 577		4	174.3	51.07	44.31	
Alley, square 276		4	488.86	190.52	150.01	3
Alley, square 577		4	220.3	51.14	88.67	1
Alley, square 1208		4	253.3	68.94	72.87	1
Alley, square 296		4	67	25.68	20.25	
Alley, reservation 11		4	190.6	56.27	48.94	1
Center Van SE.	New Jersey avenue and First.	4	524.5	127.91	160.43	2
East side Potomac	North from N	4	45	21.19	32.00	
East side North Capitol.	E and Massachusetts avenue.	6	399	158.12	112.62	2
Center M NE.	Second and Third	6	649.3	374.05	115.62	4
Center and north side I SE.	Twelfth and Thirteenth	6	586.9	271.41	216.50	4
Center Twelfth	Hartford and Galveston	6	1,020	459.41	277.06	7
Center Galveston, Brookland.	Twelfth and Thirteenth					
Center Erie NW.	West from Sixteenth	6	184.30	64.00	65.00	1
Center Clifton NW.	East from Thirteenth	6	269.30	106.19	104.49	2
North side and center M SE.	Fifth and Sixth	6	417.90	191.36	198.60	3
North side Rhode Island avenue NW.	Eleventh and Twelfth	6	329.70	154.49	176.09	3
Center Twenty-second NW.	C and Water	6	323.60	112.08	101.18	2
Center Center NW.	Meridian and Oak	6	170.30	64.39	54.93	1
West side Eighteenth NW.	R and S	6	402.80	139.19	164.17	3
South side Spring road.	Thirteenth and Holmead avenue.	6	329.20	169.66	68.37	2
South side C SE.	South Capitol and New Jersey avenue.	6	345	140.31	114.56	2
West side Thirty-fifth	Prospect and O	6	3,165.90	1,473.25	1,262.20	2,8
South side O	Thirty-fifth and Thirty-second.					
South side Dumbarton.	Thirtieth and Twenty-ninth.					
West side Twenty-eighth NW.	Dumbarton and P					
Center Thirteenth	Galveston and Emporia	6	1,712	730.11	495.00	1,2
Center Frankfort	West from Thirteenth					
Center Emporia, Brookland.	West from Thirteenth					
Center Thirteenth SE	E and Pennsylvania avenue	6	391.50	136.10	137.07	2
North side South Carolina avenue SE.	Ninth and Tenth	6	340.40	159.10	173.00	3
Center Thirteenth	Emporia and Detroit	6	1,262.20	553.27	257.19	8
Center Detroit, Brookland.	Thirteenth and a point west of Twelfth.					
Center Fifth SE.	L and M	6	381	125.91	86.75	2
Center Fourth SE.	M and N	6	672	245.64	271.81	5
East side First SE.	I and K	6	316.50	111.74	142.44	2
Center D SE.	Fifteenth and Sixteenth	6	410	203.46	182.18	3
Center Sixteenth NE.	South from Rosedale	6	169.70	109.76	85.50	1

II.—*Statement showing cost of water mains laid during the fiscal year 1896–97*—Continued.

ɔet.	Streets between—	Size.	Length.	Cost of material.	Cost of labor.	Total cost.
		Inches	*Lin. feet.*			
ɔenth NW	Columbia road and Kenesaw.	6	563.10	$198.99	$178.12	$377.11
"Little"	Eleventh and Twelfth	6	294.60	190.50	128.56	319.06
Morris NE	Sixth and Seventh	6	617.80	230.86	129.00	359.86
ighth NE.	F and G	6	556.90	215.13	175.93	391.06
.....	Ninth and Eleventh	6	620.50	299.88	215.30	515.18
G SE.	Seventh and Eighth	6	317	133.51	144.26	277.77
vard NW.	Thirteenth and Fourteenth.	6	97	32.16	33.63	65.79
ɔ North avenue	Thirteenth and Fourteenth.	6	727.10	317.90	243.18	561.08
rest sides th NW.	U and Madison	6	2,202.60	1,012.85	644.24	1,657.09
Delaware W.	H and I	6	310.50	122.55	122.43	244.98
Virginia W.	Twenty-second and Twenty-third.	6	451.30	193.28	188.13	381.41
anal SW.	First and C	6	218.40	99.08	107.98	207.06
uth Capi-	D and Ivy	6	757	282.13	261.31	523.44
outh Cap-	D and Carroll					
econd SE.	Heckman and G	6	192	68.79	90.37	159.16
outh sides	Third and Fourth	6	816.50	312.76	309.40	622.16
kson, Un-	Taylor and Fendall	6	452	158.56	78.19	236.75
Columbia..	Nineteenth and Wyoming.	6	1,145.10	605.40	435.86	1,041.26
Wyoming.	Columbia and Connecticut avenue extended.					
nnecticut extended	South from Wyoming					
nar	Thirteenth and Morgan	6	989.60	459.60	211.26	670.86
rgan NW.	South from Lamar	6	596.75	286.50	149.00	435.50
ɔ Florida	First and Q					
ew Hampnue.	Rock Creek Church road and Omaha.	6	2,376.10	979.44	608.50	1,587.94
Omaha	New Hampshire avenue and Fifth.					
fth, Pet-	Omaha and Philadelphia					
Rhode Isiue NW.	Fifth and New Jersey avenue.	6	317.60	197.15	134.37	331.52
lorida av-	South from Q	6	247.20	160.83	130.50	291.33
ips NW.	Le Roy and California	6	342.40	121.33	98.81	220.14
venty-sev-	M and O	6	1,220.60	638.10	273.30	911.40
B SE.	Eighth and Ninth	6	349.50	154.48	121.10	275.58
stnut.	Magnolia and Blair	6	4,015.15	1,703.72	929.89	2,633.61
ir	Chestnut and Wabash					
ıbash, Ta-	Blair and Piney Branch road.					
ey Branch	Wabash and Umatilla					
million.	Piney Branch and Sixth					
atilla.	Piney Branch road and Brightwood avenue.					
D SW.	West from Four-and-a-half	6	231.60	98.44	82.64	181.08
ɔ Florida W.	First and R	6	435.30	150.62	139.76	290.38
inceton	East from Thirteenth	6	169.20	65.87	66.00	131.87
vard NW.	Thirteenth and Fourteenth.	6	390.50	136.85	150.50	242.35
B.	Tenth and Twelfth	6	1,450.85	758.77	864.23	1,623.00
"Little B".	Tenth and Eleventh					
Ninth.	B and Louisiana avenue					
enth.	do					
irteenth	D and E	6	424.40	134.21	119.32	253.53
W.	East from Twenty-sixth	6	188.80	129.63	59.18	188.81
econd SE.	M and N	6	624	243.20	239.93	483.22
welfth NE.	I and K	6	449.50	175.27	141.75	317.02

TABLE VII.—*Statement showing cost of water mains laid during the fiscal 1896–97*—Continued.

Street.	Streets between—	Size.	Length.	Cost of material.	Cost of labor.	T c
		Inches	*Lin. feet.*			
West side Fifth	K and L	6	569.30	$257.99	$172.14	$
East side Fifth NE.	North from K					
North sides E and Virginia avenue SW.	First and Second	6	461.35	224.87	188.92	
South side Georgia avenue SE.	K and Fourteenth	6	1,672.59	636.43	447.50	1,
Center K	Georgia avenue and Thirteenth.					
East side First SE.	L and M	6	384.60	149.00	110.88	$
West side North Capitol.	North from D	6	222.35	94.31	102.61	
Center Seventh NE.	I and K	6	298.70	103.60	84.39	
Center Nichols, Uniontown.	Southerly from Morris road.	6	1,370	611.92	632.67	1,
North side Maryland avenue NE.	Third and Fourth	6	437.85	200.21	172.77	
Center Tenth SE.	I and K	6	308.10	115.22	113.50	
Center Warren NE.	B and C	6	573.10	246.50	179.62	
South Side G SW.	East from Half	6	182.80	114.15	72.87	
North Side Georgia avenue SE.	Eighth and Ninth	6	495.10	207.15	148.55	
West side Ninth	Georgia avenue and L					
North side Virginia avenue NW.	I and Twenty-eighth	6	99.25	71.68	47.06	
North and south sides O NW.	Twenty-ninth and Thirtieth.	6	624.80	348.54	316.71	
South side T NW.	Sixteenth and New Hampshire avenue.	6	323.10	131.76	116.79	
East side Sixth SE.	G and I	6	655.70	255.57	294.17	5
Center Irving and Roanoke NW.	Brightwood avenue and Thirteenth.	6	2,017	724.08	571.82	1,
Center Sixth NE.	M and Florida avenue	6	159.90	115.88	58.00	1
North side M NW.	Eighteenth and Nineteenth.	6	497.05	252.54	281.73	5
East side First NW.	Pierce and M	6	318.60	101.06	85.37	1
Center Lansing, Brookland.	Thirteenth and Fourteenth.	6	676	286.38	202.87	4
North side M NE.	Fifth and Sixth	6	304.55	162.53	97.25	2
District side Magnolia avenue, Takoma.	Chestnut and Oak	6	1,079	393.44	210.92	6
Center Olive NW	Twenty-seventh and Thirtieth.	6	961.55	524.48	408.82	9
Center Eslin NW	Lamar and Lydecker	6	637	226.06	122.55	3
North side M NW.	Nineteenth and Twentieth	6	347.60	182.89	137.11	3
East side Fifth SE.	G and Virginia avenue	6	592.95	225.72	150.01	3
West side Kentucky and Fifteenth SE.	E and G	6	764	341.30	207.50	5
Center Harvard NW.	East from Thirteenth	6	713.95	240.27	161.88	4
Center L SE.	Fifth and Seventh	6	897.20	308.88	306.00	6
West side Thirteenth NW.	Princeton and Harvard	6	365.40	130.76	91.50	2
Do	Harvard and Columbia	6	319	110.87	97.50	2
Lydecker NW.	East from Eslin	6	143.70	113.89	49.75	1
West side Fifth SE.	Georgia and Virginia	6	582.40	219.99	157.77	3
East side Fourteenth SE.	E and G	6	569.25	212.30	158.00	3
Center Erie NW	Sixteenth and Central	6	740	321.78	186.13	5
East side Central NW	South from Erie					
East side Sixth SW.	K and L	6	304.90	105.51	105.44	2
North side P NW.	Seventeenth and Eighteenth.	6	840	553.44	399.75	9
North side F NE.	Eleventh and Twelfth	6	316.30	141.90	166.13	3
East side Monroe, Uniontown.	Harrison avenue and railroad tracks.	6	210.40	87.06	73.89	1
Center Fillmore, Uniontown.	Jefferson and Grant	6	290.20	97.34	77.63	1
Center Polk, Uniontown.	Jefferson and Arthur	6	455.90	168.90	97.93	2
Center Meridian NW.	East of Center	6	77.80	42.75	30.63	
Center Chicago NE.	First and Second	6	634.70	251.91	146.18	3
Center Seaton NE.	Second and Third	6	344	182.33	105.51	2
Center First SE.	North from O	6	445.80	149.01	76.75	2
Center Fourth SE.	N and Georgia	6	87.80	33.67	17.44	
North side Rock Creek Church road.	New Hampshire avenue and Seventh.	6	774.70	344.85	149.68	4
West side Third SW.	K and L	6	322.40	191.58	102.70	2

VII.—*Statement showing cost of water mains laid during the fiscal year 1896–97*—Continued.

Street.	Streets between—	Size.	Length.	Cost of material.	Cost of labor.	Total cost.
		Inches	*Lin. feet.*			
e Fourteenth	E and G	6	566.4	$316.55	$134.12	$452.67
ide Florida	Quincy and North Capitol	12	812	735.99	299.24	1,035.23
ide Florida	M and Ninth	12	1,146.50	966.79	407.86	1,374.65
de East Capi-	Thirteenth and Fourteenth.					
) Thirteenth	East Capitol and Massachusetts avenue.	12	1,095	1,075.42	401.81	1,477.23
ide Florida	Porter and New York avenue.	12	1,008.22	919.62	261.69	1,181.31
ide Florida) NE.	Delaware avenue and Third.	12	202.6	208.43	101.32	309.75
ide Florida) NE.	Third and Eleventh	12	2,299.6	2,043.82	861.33	2,905.15
) NW	Florida avenue and Twenty-second.	12	313.35	305.57	134.41	439.98
V NW	New Hampshire avenue and Sixteenth.					
Florida ave-	Sixteenth and U	20	2,180.5	5,043.80	1,627.37	6,671.17
ections and nections.						
itol and First apitol and		4	46	132.77	84.50	217.27
P NW	Marion and Sixth	4	60.8	66.67	39.49	106.16
nd F NE		6	40	14.18	16.94	31.12
ath and S NW						
ath and T NW						
ath and Flor- enue.		6	80	146.85	119.00	265.85
	Seventeenth and Eighteenth.					
avenue and						
avenue and r.		6		57.04	34.48	91.52
s along Florvenue NW. E.		6	188.5	463.79	360.04	823.83
nd I SE		6	20	8.12	8.00	16.12
urth, Fifth, xth NE.		6	124.4	41.76	96.12	137.88
ed mains					58.80	58.80
tal				43,820.52	a29,744.29	73,564.81
laying mains, intersections, and connections, including s to improved pavements				43,820.52	a29,744.29	73,564.81
recting fire hydrants, including repairs to improved pave-				2,269.74	a636.18	2,905.92
				46,090.26	30,380.47	76,470.73
uperintendence and engineering					4,483.21	4,483.21
and total				46,090.26	34,863.68	80,953.94

per cent should be added to the cost of labor to attain the actual amount expended for uperintendence, and engineering.

TABLE VIII.—*Statement of the lengths and costs of water mains laid from July 1, 1878, to June 30, 1897.*

Fiscal year.	36-inch.	24-inch.	20-inch.	16-inch.	12-inch.	10 inch.	8-inch.
	Lin. feet.	*Lin. feet.*	*Lin. feet.*	*Lin. feet.*	*Lin. feet.*	*Lin. feet.*	*Lin. feet.*
1878	39.5				3,719		
1879					7,409		
1880							
1881							
1882							
1883					1,625		26
1884					1,038		
1885					963		
1886					1,938	791	
1887			a 4,835		b 1,124	a 2,998	
1888					731		
1889		2,312	5,140		5,620	2,784	
1890							
1891					c 5,201		
1892			2,926	2,500	c 10,163		
1893					6,473		
1894			278		39,386		
1895		6,617			27,731		
1896		294	8,874		11,873		
1897			2,180		6,877		
Total	39.5	9,223	24,233	2,500	131,877	6,573	26

Fiscal year.	6-inch.	4-inch.	3-inch.	1¼-inch.	Total.	Cost.
	Lin. feet.	*Lin. feet.*	*Lin. feet.*	*Lin. feet.*		
1878	12,781	30			16,569.5	$14,846.20
1879	8,516	1,397			17,352	19,436.03
1880	d 3,024				3,024	
1881	3,709				3,709	3,110.70
1882	1,920				1,920	1,626.43
1883	4,084				5,735	8,073.70
1884	8,972				10,010	10,492.51
1885	27,766	358	485		29,572	25,865.35
1886	35,192		6,623		44,544	40,025.10
1887	30,041	a 292	7,124		46,414	56,951.00
1888	9,123	9,148	3,937		22,939	17,626.63
1889	36,742	6,571	8,753		67,928	79,342.16
1890	c 34,737	c 2,856	2,855		40,448	19,113.54
1891	c 56,893	c 3,142	c 11,013		76,249	49,702.65
1892	c 88,709.5	c 3,342	1,296		108,926.5	74,733.04
1893	e 54,173.5	e 8,336.5	e 3,458.5		72,941.5	56,339.39
1894	86,632.5	12,832	2,918.5		142,047	126,589.55
1895	f 103,785.5	5,442	f 2,733		146,308.5	134,502.31
1896	g 61,464.5	g 1,738	g 3,282.5		87,500	89,395.12
1897	h 71,266.5	h 10,595	992.5	2,104	94,015	77,954.81
Total	739,562	66,579.5	55,441	2,104	1,038,158	900,864.20

a Cost of laying intersections not included herein.
b 1,074 feet laid to Congressional Library, cost not included herein.
c 45,246 feet laid under permit system, cost not included herein.
d Laid on Road street, Georgetown, to replace old cement pipe.
e 434 feet laid under permit system and 1,939 feet used for connections to fire hydrants, cost not included herein.
f 14,790 feet laid under permit system and 3,406 feet used for connections to fire hydrants, cost not included herein.
g 18,199.55 feet laid under permit system and 1,004 feet used for connections to fire hydrants, cost not included herein.
h 1,837 feet of 6-inch and 3,656 feet of 4-inch laid under permit system and 696 feet used for connections to fire hydrants, cost not included herein.

TABLE IX.—*Average cost per foot for laying mains of various sizes.*

Size.	Linear feet.	Cost of material.	Cost of labor.	Cost of superintendence and engineering.	Total cost.
1½ inches diameter	2,103.80	$0.0724	$0.0980	$0.0163	$0.1867
3 inches diameter	980.40	.2588	.2700	.0400	.5688
4 inches diameter	6,507.85	.3000	.2876	.0424	.6300
6 inches diameter	66,678.24	.4224	.2939	.0434	.7597
12 inches diameter	6,877.27	.9089	.3483	.0514	1.3086
20 inches diameter	2,180.50	2.3140	.7438	.1098	3.1676

The above table does not include the cost of relaying pavements. Brick pavements have been laid by the water department, and other kinds by the surface department.

TABLE X.—*Average cost per foot for relaying pavements.*

Size.	Cobble.		Brick.		Belgian.		Asphalt blocks.		Sheet asphalt.	
	Linear feet.	Cost.	Linear feet.	Cost.	Linear feet.	Cost.	Linear feet.	Cost.	Linear feet.	Cost.
3-inch	306	$0.12								
4-inch	1,852	.13			116	$0.42	347	$0.31	60	$0.46
6-inch	1,128	.15	6,673	$0.07	1,451	.54	602	.63	993	.57
12-inch									12	.85

TABLE XI.—*Average daily consumption, middle high service.*

Month.	Gallons.	Month.	Gallons.
July, 1896	4,178,000	January, 1897	4,000,000
August, 1896	4,010,000	February, 1897	4,000,000
September, 1896	4,012,000	March, 1897	4,056,300
October, 1896	3,894,000	April, 1897	3,953,000
November, 1896	3,758,000	May, 1897	4,208,500
December, 1896	4,000,000	June, 1897	4,536,800

TABLE XII.—*Average daily consumption, upper high service.*

Month.	Gallons.	Month.	Gallons.
July, 1896	121,560	January, 1897	109,570
August, 1896	148,000	February, 1897	122,300
September, 1896	136,600	March, 1897	108,100
October, 1896	91,700	April, 1897	109,700
November, 1896	75,920	May, 1897	106,500
December, 1896	93,120	June, 1897	104,200

TABLE XIII.—*Statement of the lengths and costs of water mains laid under the appropriation for the extension of the high-service system of water distribution from July 1, 1893.*

Fiscal year.	24-inch.	20-inch.	12-inch.	6-inch.	4-inch.	1½-inch.	Total.	Cost.
	Lin. feet.	*Lin. feet.*	*Lin. feet.*	*Lin. feet.*	*Lin. feet.*	*Lin. feet.*	*Lin. feet.*	
1893			2,682	2,822.50			5,504.50	$6,760.16
1894		278	52,789.75	14,269.50			67,337.25	69,247.27
1895	6,616.75		9,625	28,396.25	954		45,592	77,716.66
1896	294	8,873.50	3,788.35	12,890.55	307.50		26,153.90	46,241.65
1897		2,180.50	3,510.42	28,054.85	348.35	2,103.80	36,197.92	31,497.54

TABLE XIV.—*Locations of shallow wells.*

NORTHWEST.

Location.	Street or avenue.	Location.	Street or avenue.
West side	Thirty-fifth, near T.	Southeast corner	Ninth and H.
	Thirty-fourth, near U.	North side	Louisiana avenue, between Ninth and Tenth.
Southwest corner	Thirty-fourth and S.	Southwest corner	Eighth and F.
Northwest corner	Thirty-fourth and Q.	Northwest corner	Sixth and K.
East side	Thirty-second, near T.	Northeast corner	Sixth and H.
Southwest corner	Thirty-second and R.	East side	Sixth, between F and G.
West side	Thirty-second, between P and Q.	Southeast corner	Fifth and Ridge.
Southeast corner	Thirty-second and Dumbarton.	East side	Fifth, between I and K.
Northwest corner	Thirty-third and N.	Northeast corner	Vermont avenue and L.
West side	Valley, near Q.	Northwest corner	Thirteenth and M.
South side	O, between Thirty-first and Thirty-second.	West side	New Jersey avenue, between M and N.
Northwest corner	Twenty-eighth and O.	Southeast corner	New Jersey avenue and Pierce.
	Twenty-seventh and K.	Northwest corner	Third and L.
Southeast corner	Twenty-sixth and D.	South side	New York avenue, between Fourth and Fifth.
North side	D, between Twenty-second and Twenty-third.		New York avenue, between Sixth and Seventh.
South side	Virginia avenue, between Twenty-first and Twenty-second.	North side	G, between First and North Capitol.
North side	T, between Seventeenth and Eighteenth.	Northeast corner	Third and Indiana avenue.
	New York avenue, between Seventeenth and Eighteenth.	West side	Four-and-a-half, between C and D.
		South side	E, between Seventeenth and Eighteenth.
	Caroline, between Fifteenth and Sixteenth.	North side	Massachusetts avenue, between Sixth and Seventh.
Northwest corner	Sixteenth and Corcoran.	South side	Wilson, between Third and Fourth.
Northeast corner	Seventeenth and K.	East side	Sixth (extended), near Lincoln.
West side	Twelfth, between G and H.	Southeast corner	Brightwood avenue and Irving.
Northwest corner	Twelfth and New York avenue.	West side	Brightwood avenue, south of Whitney.
	Twelfth and Massachusetts avenue.	East side	Brightwood avenue, Brightwood, D. C.
Southwest corner	Tweifth and N.	Northeast corner	Sherman and Sheridan avenues.
Southeast corner	Twelfth and Florida avenue.	Southwest corner	Eighth (extended) and Grant avenue.
	Twelfth and Q.		
East side	Eleventh, near G.		
Southeast corner	Eleventh and M.		
Northwest corner	Tenth and K.		
Northeast corner	Tenth and N.		

NORTHEAST.

East side	North Capitol, between B and C.	Northwest corner	Eighth and A.
Engine Co. No. 3	Delaware avenue and C.	North side	E, between Eighth and Ninth.
Southeast corner	First and K.	Northwest corner	Eleventh and F.
Northwest corner	Third and C.	North side	B, between Thirteenth and Fourteenth.
	Third and Massachusetts avenue.	East side	Lincoln avenue, between S and T.
Northeast corner	Second and G.	Southwest corner	North Capitol and Randolph.
Northwest corner	Fourth and E.	North side	Keating avenue, near Lincoln avenue.
Northeast corner	Fourth and East Capitol.		Seaton, between Twentieth and Twenty-first.
Southwest corner	Fifth and A.		
Southeast corner	Fifth and D.		
	Second and E.		
Northwest corner	Sixth and C.		
East side	Sixth, between A and B.		

SOUTHWEST.

North side	Virginia avenue, between Tenth and Eleventh.	Southeast corner	Four-and-a-half and Maryland avenue.
Northeast corner	Eleventh and F.	North side	I, between Four-and-a-half and Sixth.
South side	D, between Ninth and Tenth.		B, between First and Second.
Southeast corner	Seventh and I.	Southwest corner	South Capitol and N.
Northeast corner	Seventh and M.	Southeast corner	Half and P.
North side	K, between Sixth and Seventh.	East side	M, between Four-and-a-half and Sixth.
Northeast corner	Sixth and Maryland avenue.		

TABLE XIV.—*Locations of shallow wells*—Continued.

SOUTHEAST.

n.	Street or avenue.	Location.	Street or avenue.
orner.	First and K.	East side	Eleventh, between B and C.
orner.	First and M.		Eleventh, between G and I.
.....	O, between Half and First.	South side	I, between Eleventh and Twelfth.
orner.	Second and I.		
orner.	Third and Pennsylvania avenue.	East side	Eleventh, between N and O.
		Southeast corner.	Twelfth and G.
orner	Third and C.	East side	Twelfth, between D and E.
.....	Fourth, near South Carolina avenue.	South side	E, between Twelfth and Thirteenth.
orner.	Fourth and C.	West side	Thirteenth, between D and E.
orner.	Fifth and G.		
.....	Sixth, between C and Pennsylvania avenue.	South side	L, between Thirteenth and Fourteenth.
orner	Sixth and B.		T, Hillsdale.
orner.	Sixth and A.	Southeast corner.	Stanton avenue and Elvin, Hillsdale.
orner	Seventh and B.		
.....	Seventh, between B and C.	West side	Nichols avenue, opposite Birney School.
orner.	Seventh and Virginia avenue.	Northeast corner.	Washington and Pierce, Uniontown.
orner	Eighth and I.		
orner.	Eighth and B.	North side	Jefferson, between Morris and Fillmore, Uniontown.
orner.	Eighth and A.		
orner.	Ninth and South Carolina avenue.	Southwest corner	Harrison and Pierce, Uniontown.
	Ninth and C.		Fillmore and Jackson, Uniontown.
orner.	Ninth and E.		
orner	Tenth and South Carolina avenue.	South side	Harrison and Minnesota avenue, Uniontown.
.....	South Carolina avenue, between Tenth and Eleventh.	South side	K, between Thirteenth and Fourteenth.

T.—Location of shallow wells filled for the fiscal year ending June 30, 1897.

th and P streets NW.
ır Twenty-first NW.
t, between K and L NE.
and F streets NE.
eet, Ivy City.
tween Four-and-a-half and C SW.
Fifth and B streets SE.
Half, near T street SW.
Half and N streets SW.
Tenth and E streets SE.
Eighth street, between Richmond and Savannah.

TABLE XVI.—*Deep wells.*

ion.	Completed.	Total depth.	Character of material penetrated.	Depth of rock penetrated.	Inference from chemical analysis of water.	Flow per minute when completed.	General condition at the close of the fiscal year.
	1896.	*Ft.*		*Ft.*		*Galls.*	
streets	Sept. 1	207	Sandy clay...	.....	Best of conditions.	10	Water very fine, but slight taste of iron; temperature 63°.
and D W.	Sept. 25	247	Clay and rock	137	Very bad...	.25	Abandoned.
) streets	Oct. 1	96	Clay and sand	.....	Very fine...	12	Water very fine, slight taste of iron; temperature 60°.
d Virvenue	Oct. 7	146	.....do.....	.....	Very good .	12	Water very good; slight taste of iron; temperature 61°.
South avenue	Oct. 17	147	.....do.....	.....	.....do.....	13	Water good, but strong taste of iron; not used because of the close proximity of two surface wells; temperature 64°.
and C	Oct. 26	149	.....do.....	.....	.....do.....	12.5	Water very good, with only slight taste of iron; temperature 60°.

TABLE XVI.—*Deep wells*—Continued.

Location.	Completed.	Total depth.	Character of material penetrated.	Depth of rock penetrated.	Inference from chemical analysis of water.	Flow per minute when completed.	General con at the close fiscal ye
	1896.	*Ft.*		*Ft.*		*Galls.*	
Third and M streets SE.	Nov. 6	223	Clay and sand	.....	Good	12.5	Water very slight taste temperatu
Second and North Carolina avenue, SE.	Nov. 18	232	.....do.....	.....	Very good .	12	Water very but stron of iron; te ture 60°.
Sixth and B streets NW.	Nov. 28	140	Clay and rock	15	.....	7.5	Water very slight taste temperatu
Seventh and M streets NW.	Dec. 9	151	.....do.....	18	Good	6	
	1897.						
N, between Fourth and Fifth NW.	Jan. 1	150	.....do.....	23	.....do.....	10.5	Water very slight taste temperatu
Twelfth and M streets NW.	Jan. 13	149	.....do.....	47	Very good .	6.75	Water very very slight of iron; te ture 59°.
Fairview	Jan. 21	175	.....do.....	.....	.....do.....	15	Water good strong tas iron; tempe 60°.
O, between Sixth and Seventh NW.	Mar. 13	201	.....do.....	101	Good	12	Water very slight taste temperatu
Twentieth and Pennsylvania avenue NW.	Apr. 6	203	.....do.....	160	.....do.....	1.5	Water disc strong tas iron; tempe 59°.
Eleventh and East Capitol streets.	Apr. 19	181	Clay and sand	.....	Fair	10	Water very but slig cloudy, and taste of iro perature 59°
Eighth, between Richmond and Savannah streets NW.	June 2	195	Clay and rock	120	Good	3	Water very temperatu
Staunton and Elvin avenues, Hillsdale.	June 15	185	Clay and sand	.....	.....do.....	8	Water mudd strong tas iron; tempe 63°.
First and G streets NW.	June 24	141	.....do.....	.....	Very good .	12	Water very slight taste temperatu
Third and H streets NE.	June 30	157	.....do.....	.....	.....do.....	12	Do.

THE WATER REGISTRAR AND CHIEF CLERK OF THE WATER DEPARTMENT.

ENGINEER DEPARTMENT, WATER OFFICE,
Washington, D. C., August, 1897.

the honor to submit the following report of the operations of the ıspection division of the water department for the year ending June

ıde	51,525
	3,126
	2,974
	14
ıured	14
ɔolice court	$14
d in police court	8
by inspectors	31,075
water taxes issued	5,151
ing the year	203
e water department from all sources from July 1, 1896, 897	$313,438.83

ıg tables are submitted:
ıtements of receipts of the water department from all sources from ɔ June 30, 1897, amounting to $4,206,664.11.
tatement of expenditures from July 1, 1878, to June 30, 1897, amount- 11.02.
ɜtatement of assessments and collections of water main tax from to July 1, 1897. Total amount assessed, $1,093,605.66; total amount ,321.66.
ɜtatement of advances to the Treasurer of the United States from mounting to $1,609,957.02.
umber of dwellings and tenement houses supplied with Potomac ıber of miscellaneous water takers.
Number, kind, and size of water meters in use to June 30, 1897.
pectfully,

JOHN J. BEALL, *Water Registrar.*

AM M. BLACK, U. S. A.,
eer Commissioner, District of Columbia.

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tement of receipts of the water department, District of Columbia, from July 1, 1878, to June 30, 1897.

year.	Balance on hand July 1, 1878.	Mains to Government Printing Office.	Water-main tax.		Interest on water-main tax.	
			Advertised.	Current.	Advertised.	Current.
July 1, 1878	$16,809.42					
ding June 30—						
			$6,195.59	$12,463.10	$1,635.96	$1,059.53
			10,248.87	11,926.81	3,457.43	1,340.18
			3,200.38	18,368.39	1,228.94	4,040.08
		$2,800.00	4,017.92	3,305.50	2,086.07	392.34
		1,750.00	7,320.13	5,467.96	3,769.83	350.54
			3,563.12	8,700.53	2,385.59	122.42
			3,282.57	14,430.22	2,598.81	267.23
			3,564.81	29,631.30	2,343.44	622.49
			7,630.50	34,874.59	3,183.02	1,494.53
			8,605.53	19,939.91	5,120.55	598.86
			5,524.26	38,404.29	3,192.09	1,099.94
			9,207.61	29,257.28	5,364.04	1,557.62
			2,863.02	45,055.34	1,630.54	774.03
			4,562.67	90,415.38	2,064.56	1,764.74
			4,081.83	63,099.31	1,516.15	1,329.04
			3,764.01	80,407.07	1,273.32	1,531.04
			4,294.38	65,014.15	1,379.30	2,284.41
			580.65	26,071.07	372.98	662.87
			2,429.48	48,512.13	805.30	1,906.48
	16,809.42	4,550.00	94,917.33	613,404.33	45,408.52	23,198.42

TABLE I.—*Statement of receipts of the water department, District of Columbia, etc.*—Continued.

Fiscal year.	Water rents.	Taps.	Permits and other sources.	Total receipts.
Balance on hand July 1, 1878				$16,809.42
Received year ending June 30—				
1879	$43,574.24	$1,986.00	$2,139.25	69,053.67
1880	165,641.42	1,980.00	2,188.10	196,762.81
1881	109,737.83	1,851.00	1,915.72	140,342.34
1882	101,621.10	1,815.00	1,789.71	117,827.64
1883	65,752.24	2,193.00	2,188.72	88,722.42
1884	119,610.20	2,373.00	2,418.79	139,173.65
1885	118,528.20	3,402.00	3,076.09	145,665.17
1886	124,896.22	5,096.00	3,459.03	169,613.29
1887	138,539.42	6,012.00	4,846.45	196,581.18
1888	171,892.49	4,182.00	4,809.92	215,149.26
1889	189,407.39	5,190.00	5,576.16	246,454.13
1890	197,053.34	5,313.72	6,327.95	254,081.56
1891	209,664.29	5,640.00	6,869.79	272,497.01
1892	220,892.93	5,790.00	6,280.81	301,771.09
1893	235,911.25	7,307.09	7,931.71	321,176.38
1894	245,899.69	4,497.00	1,168.79	338,540.92
1895	251,872.71	4,537.55	2,100.60	331,483.10
1896	255,439.11	4,026.00	1,191.09	298,323.77
1897	253,500.16	5,157.00	1,128.28	313,498.83
Repayments during various fiscal years				39,855.31
Special assessment, service pipes				3,331.16
Total	3,219,434.30	78,348.36	67,406.96	4,208,664.11

TABLE II.—*Expenditures.*

Fiscal year.	Purchase of pump-house lot and erection of standpipe.	Extra clerical services making new water-rent and numerical books.	High service.	Material and labor, pumping expenses and pipe distribution.	Salaries, water department.	Contingent expenses.
Expended from July 1, 1878, to June 30, 1896	$36,488.26	$1,225.00	$410,269.36	$1,354,749.56	$359,549.62	$34,584.70
Expended 1897 on account of 1896				2,533.87		616.95
Expended 1897 on account of 1897			86,794.66	85,395.40	36,371.25	1,911.73
Total	36,488.26	1,225.00	497,064.02	1,442,678.83	395,920.87	37,113.38

Fiscal year.	Water rent refunded.	Water-main tax refunded.	Interest on water-main tax refunded.	Purchase of new pumping engines and boilers.	Water main to Government Printing Office.	Total expenditures.
Expended from July 1, 1878, to June 30, 1896	$43,994.59	$2,094.19	$194.29	$33,041.24	$8,946.21	$2,285,157.02
Expended 1897 on account of 1896						3,150.83
Expended 1897 on account of 1897	780.14					211,253.18
Total	44,774.73	2,094.19	194.29	33,041.24	8,946.21	2,499,541.02

II.—*Statement of assessments and collection of water-main tax from July 1, 1878, to June 30, 1897.*

l year.	Amount assessed.	Duplicate payments and over payments.	Six per cent abatement.	Amount of tax canceled subsequent to July 1, 1878.	Amount collected July 1, 1878, to June 30, 1897.	Amount outstanding July 1, 1897, subject to exemption act of Mar. 3, 1881.	Amount of collectible tax outstanding July 1, 1897.
e 30, 1878, 30, 1896.....	a $1,000,131.68	$2,104.45	b$23,899.05	$198,892.14	$657,380.05	$4,113.78	$117,951.11
.....	93,473.98	.....	1,847.71	161.71	50,941.61	.....	40,522.95
l.....	1,093,605.66	2,104.45	25,746.76	199,053.85	708,321.66	4,113.78	158,474.06

s amount $94,124.78 was outstanding and uncollected July 1, 1878.
s amount $223.75 is abatement allowed property owners on College Hill for amounts ıem to R. A. Charles.

RECAPITULATION.

ıunt of assessments plus duplicate payments.....	$1,095,710.11
f abatement at 6 per cent.....	25,523.01
f abatement allowed property owners on College Hill for amounts paid to R. A. Charles.....	223.75
f tax canceled and struck off books since July 1, 1878: ler of Commissioners District of Columbia, decision of Supreme Court, –various dates.....	199,053.85
ıount subject to exemption, act March 3, 1881.....	4,113.78
f tax collected from July 1, 1878, to June 30, 1897.....	708,321.66
ıutstanding July 1, 1897—collectible tax.....	158,474.06
l.....	1,095,710.11

TABLE IV.—*Advances to Treasurer United States.*

Fiscal year.	Interest and sinking fund water-stock bonds.	Interest and sinking fund 48-inch and Fourteenth street mains.	Interest and sinking fund increasing water supply.	Total interest and sinking fund.
l to Treasurer United States, ex Commissioner of sinking fund, of Columbia:				
.....	$74,025.00	.....	.....	$74,025.00
.....	74,123.77	.....	.....	74,123.77
.....	43,796.08	.....	.....	43,796.08
.....	44,610.00	.....	.....	44,610.00
.....	44,575.00	.....	.....	44,575.00
.....	44,610.00	.....	$13,686.23	58,296.23
.....	31,485.00	.....	55,047.27	86,532.27
.....	57,735.00	.....	.....	57,735.00
.....	31,485.00	.....	57,239.02	88,724.02
.....	44,610.00	.....	76,655.69	121,265.69
.....	44,610.00	.....	81,283.26	125,893.26
.....	44,610.00	.....	71,164.21	115,774.21
.....	44,610.00	.....	69,991.13	114,601.13
.....	44,610.00	$20,713.89	68,817.14	134,141.03
.....	44,610.00	20,358.80	67,537.17	132,505.97
.....	44,610.00	20,003.70	62,052.27	126,665.97
.....	44,610.00	19,648.60	40,408.98	104,667.58
.....	40,927.06	7,457.00	13,640.75	62,024.81
al.....	844,251.91	83,181.99	677,523.12	1,609,957.02

RECAPITULATION.

ıt collected, of which there has been deposited in the United States Treas- l credited to water fund the sum of.....	$4,206,664.11
ıt expended from July 1, 1878, to June 30, 1897.....	2,499,541.02
ıt advanced to Treasurer United States, ex officio Commissioner sinking istrict of Columbia, during said period.....	1,609,957.02
ıt collected on account of water-main tax and deposited to credit of gen- :es, December 20, 1880.....	10.75
ıt collected on account of water rent July 20, 1890, and deposited to credit taxes, August 13, 1890.....	2.00
o credit of water fund, District of Columbia, July 1, 1897.....	97,153.32
al.....	4,206,664.11

TABLE V.—*Premises in the District of Columbia supplied with Potomac water.*

Dwellings and tenements.	North-west.	North-east.	South-west.	South-east.	Total.
To June 30, 1896	24,724	6,697	4,951	4,806	41,1
Year ending June 30, 1897	671	251	167	470	1,5
Total	25,395	6,948	5,118	5,275	42,7

MISCELLANEOUS WATER TAKERS.

Asylums	3	2		1	
Armories	7				
Baseball grounds	2				
Barber shops	109	8	7	6	
Bakeries	57	8	18	9	
Banks	16			2	
Bar rooms	268	33	65	38	
Boarding houses	112	34	1	6	
Breweries	3	1	1	1	
Bottling depots	8	3	6	1	
Bookbinderies	4				
Baths	4				
Brickyards		2		3	
Colleges	13	1			
Churches	80	8	17	16	
Cemeteries	3	1	1		
Clubrooms	10			1	
Convents	2	2			
Car stables	12	5	3	4	
Croquet grounds	3				
Dining rooms	22				
Dyehouses	20	4	2	2	
Engine houses	9	2	1	2	
Florists	3				
Foundries	10	3			
Factories	2			2	
Gas engines	3	2	1		
Greenhouses	6	2	1	3	
Halls	41		3	7	
Hospitals	9	2	1	1	
Hotels	40				
Laundries	40	1	4	4	
Manufactories	17	2		2	
Market houses	5	1		1	
Mills	11		2	1	
Museums			3		
Motors	2				
Orphan asylums	5				
Offices	796	1	1	7	
Printing houses	16	1			
Police stations	5	2	1	1	
Photograph galleries	26				
Restaurants	232	3	5	19	
Railway stations	3	1			
Riding schools	2				
Livery stables	58	4	1	6	
Stables, private	842	78	18	34	
Shops	146	8	9	9	
Steam boilers	57	4	2	2	
Steam engines	83	7	14	5	
Slaughterhouses		2			
Stores	1,425	39	74	114	1,(
Schools, public	50	18	4	9	
Schools, private	27	2	2	1	
Stone yards	12	4	1		
Steamboat wharves			10		
Theaters	6				
Truck Company A		1			
Truck Company B		1			
Truck Company C	1				
Truck Company D	1				
Warehouses	48	6	13	6	
Wood and coal yards	24	4	3	9	
Total	4,861	313	295	335	5,8

t section	5,118	11.98	295	5.09
section	5,275	12.34	335	5.72
l	42,736		5,804	

REPORT OF THE SUPERINTENDENT OF LAMPS.

WASHINGTON, D. C., *July 31, 1897.*

ost important improvement in the street-lighting service during the year abandonment of the moonlight schedule and the introduction of an all-ery-night schedule. The change was authorized by the appropriation act iscal year 1897, which provided for lighting the lamps every night on the from forty-five minutes after sunset until forty-five minutes before sun-nother change, but one that does not seem to be in the line of improve-as the reduction by Congress of the size of the burner for gas lamps from bic feet per hour. Although a corresponding reduction of 50 cents per r year was made in the maximum price, the service was not improved.

:namental illuminated sign lamp of the Collis pattern, quite extensively New York, was purchased and placed at the corner of Fifteenth street nsylvania avenue in front of the Riggs Bank. This style of lamp is the isfactory one so far found for designating corners where arc lamps are ied. Some fifteen others will be purchased and put in place during 1898 nost prominent corners, principally at street-railway transfer points and

a few minor exceptions the gas-lighting service has been well maintained. burners were replaced with new ones adjusted for 5 cubic feet, the expense hange being borne by the companies. All lamp-posts and lanterns were by the companies, as required by the terms of their contracts with the

Boulevard lamps have been placed on Sixteenth street from Lafayette o Florida avenue and extended on Massachusetts avenue and Connecticut

of gas lamps moved and reset	51
of broken posts reerected	27
of unused posts taken down	118
of new posts erected	192

aphtha-lighting service has been extended in the suburbs to Congress Tacoma Park, Bennings, Brookland, Langdon, Meridian Hill, and Sher-enue and adjacent streets. All the lamps that were changed from gas the year 1896 were changed back to naphtha with the exception of those ladensburg road.

of naphtha lamps moved and reset	51

for lighting; price per lamp per annum, $20, including lighting, extinguishing, repairing, painting, and cleaning; candle power of burner, 18; Wellington plate burner used; contractors, Pennsylvania Globe Gas Light Company of Philadelphia.

Schedule for incandescent lighting, 3,760 hours per annum; price per lamp per annum, $20; candle power, 25; contractors, Potomac Electric Power Company.

The following lists show the location of all new gas, naphtha, and incandescent lamps established during the year:

LOCATION OF NEW GAS LAMPS ERECTED IN 1897.

Northwest.—One on Liberty street, between Thirteenth and Fourteenth streets; 2 on Vermont avenue, between R and S streets; 1 on L street, between Twenty-second and Twenty-third streets; 1 on New Hampshire avenue, between N and O streets; 2 on Tenth street, between Q and R streets; 1 at southeast corner Florida and New Jersey avenue; 1 on south side F street, between Second and Third streets; 2 on south side N street, between Twenty-first and Twenty-second streets; 5 on Willard street, between Seventeenth and Eighteenth streets; 2 on Seventeenth street, between T and U streets; 1 at corner Seventeenth and U streets; 2 on Cedar place, between Eighteenth and Nineteenth streets; 1 on Oregon avenue, between New Hampshire avenue and Eighteenth street; 1 at corner Q and Marion streets; 1 at corner P and Marion streets; 2 on Morgan street, between New Jersey avenue and Kirby street; 2 on New Jersey avenue, between M and Morgan streets; 1 at corner Third street and New York avenue; 3 on C street, between Fourteenth and Fifteenth streets; 2 on D street, between Fourteenth and Fifteenth streets; 1 in front of Truck B, New Hampshire avenue; 2 on L street, between Twenty-fourth and Twenty-fifth streets; 1 on north side Rhode Island avenue, between Eleventh and Twelfth streets; 2 on Seventeenth street, between New York avenue and E street; 2 on New York avenue, between Seventeenth and Eighteenth streets; 3 in alley between I, K, Sixteenth and Seventeenth streets; 1 on Johnson avenue, between R and S streets; 1 on Twenty-first street, between O and P streets; 1 on T street, between Seventh and Eighth streets.

Northeast.—One at southeast corner Florida avenue and Eleventh street; 1 on Eighth street, between I and K streets; 2 on Emerson street, between Thirteenth and Fourteenth streets.

Southwest.—One on D street, between Eighth and Ninth streets; 1 on E street, between Eighth and Ninth streets; 2 on Thirteen-and-a-half street, between C and D streets; 2 on Tenth street, between F and G streets.

Southeast.—Two on Ivy street, between New Jersey avenue and South Capitol street; 4 on Kentucky avenue, between A and B streets; 1 at corner First and Heckman streets; 1 at corner Second and Heckman streets; 2 on Heckman street, between First and Second streets.

County.—One at corner Brightwood avenue and Steuben street; 10 on Brightwood avenue, between Piney Branch road and Military road; 1 at corner Brightwood avenue and Sheridan street; 1 at corner Brightwood avenue and Wallach street; 1 at corner Brightwood avenue and Princeton street; 1 at corner Brightwood avenue and Bismarck street; 4 on east side Eighteenth street, between Florida avenue and Columbia road; 3 on Belmont avenue, between Eighteenth street and Columbia road; 1 at corner Belmont avenue and Eighteenth street; 1 on Eighteenth street, between Belmont and Kalorama avenues; 1 at corner Eighteenth street and Kalorama avenue; 1 on Kalorama avenue, between Eighteenth street and Columbia road; 2 on Wyoming avenue, between Eighteenth and Ninteenth streets; 3 on Le Roy place, between Phelps place and Connecticut avenue; 3 on Bancroft place, between Phelps place and Connecticut avenue; 1 on Connecticut avenue, between S street and Bancroft place; 1 at corner Florida avenue and S street; 1 at corner Florida avenue and Connecticut avenue; 2 on S street, between Florida avenue and Phelps place; 2 on Phelps place, between S street and Bancroft place; 2 on Phelps place, between Le Roy place and California avenue; 1 at corner Thirteenth and Yale streets; 1 on west side Thirteenth street, between Yale and Princeton streets; 1 at corner Thirteenth and Columbia streets; 1 on Thirteenth street, between Columbia and Kenesaw streets; 2 on Kenyon street, between Thirteenth and Fourteenth streets; 1 at corner Thirteenth and Kenyon streets; 1 on Kenyon street, between Twelfth and Thirteenth streets; 1 on Kenesaw street, between Twelfth and Thirteenth streets; 1 on Thirteenth street, between Kenesaw and Columbia streets; 3 on Columbia street, between Thirteenth and Fourteenth streets; 2 on Thirteenth street, between Harvard and Princeton streets; 1 at corner Thirteenth and Princeton streets; 2 on Yale street, between Thirteenth and Fourteenth streets; 2 on Thirteenth street, between Clifton and Roanoke streets; 2 on Thirteenth street, between Kenesaw and Kenyon streets; 1 on Thirteenth street, between Columbia

untington place, between Fourteenth street and University place; 1 on Uni- place, between Huntington and Euclid places; 1 at corner University and places; 2 on University place, between Euclid and Welling places; 1 at University and Welling places; 16 in Takoma Park; 1 on Le Droit avenue, n Florida avenue and S street; 1 at corner Le Droit avenue and Seaton street; rner Le Droit avenue and T street; 1 at corner Le Droit and Rhode Island s; 1 on Le Droit avenue, between T and U streets; 1 on Le Droit avenue, n U and Elm streets; 2 on Twenty-second street, between Florida avenue street; 1 at corner Twenty-second and R streets; 2 on R street, between y-second and Twenty-third streets; 1 on R street, between Florida avenue venty-second street; 1 on Fillmore street, between Washington and Jeffer- eets.

LOCATION OF NEW NAPHTHA LAMPS ERECTED IN 1897.

nty-five on Nichols avenue and Congress Heights; 12 on Piney Branch road, Brightwood avenue to Takoma Park; 47 at Bennings and Bennings road, 17 idensburg road, 23 in Brookland, 20 in Langdon, 2 on Le Droit avenue, en Elm and Wilson streets; 10 on Superior street, from Sixteenth street to plain avenue; 7 on Prospect street, between Sixteenth and Superior streets; rescent street, between Sixteenth and Prospect streets; 3 on Central street, en Superior and Erie streets; 34 on Sherman avenue, from Grant to Whit- enues; 2 on Bismarck street, between Sherman and Brightwood avenues; 4 le street, between Sherman avenue and Thirteenth street; 4 on Princeton between Sherman and Brightwood avenues; 4 on Steuben street, between an and Brightwood avenues; 4 on Wallach street, between Sherman and wood avenues; 4 on Sheridan street, between Sherman and Brightwood es; 4 on Kenesaw street, between Sherman avenue and Thirteenth street.

LOCATION OF INCANDESCENT LAMPS ERECTED IN 1897.

hundred in Eckington, 12 on Aqueduct Bridge, 20 on Tennallytown road- Woodley Inn to Tennallytown; 12 on Tennallytown road, from Tennally, o District line.

ELECTRIC LIGHTING.

ncrease in the appropriation for arc lighting and a reduction in price, as lt of the competition between the United States Electric Lighting Com- nd the Potomac Electric Power Company, enabled the department to estab- 0 additional lamps. A suit brought by the former company to enjoin the issioners and the latter company from entering into a contract for a portion new lamps prevented the District from erecting them until February, 1897. ajority of the new lamps were in operation, however, in time for the inau- ceremonies. This long delay in getting the lamps up has left a large balance

per annum; Potomac Electric Power Company, 24 lamps in Georgetown, at $94.90 per lamp per annum.

The following table shows the location of the new arc lamps established during the year:

LOCATION OF NEW ARC LAMPS ESTABLISHED IN 1897.

Maintained by the Potomac Electric Power Company.—Seventeen on New York avenue, from Fourteenth to Ninth street NW.; 29 on Ninth street, from Massachusetts to Florida avenue; 6 on Florida avenue, between Ninth and Tenth streets; 3 on Florida avenue, from Seventh to Ninth street; 12 on Fifth street, from D to I street NW.; 4 on D street, between Fourth and Fifth streets NW.; 3 on Missouri avenue, between Four-and-a-half and Sixth streets NW.; 38 on Four-and-a-half-street, from Missouri avenue to P street SW.; 4 on L street, between Four-and-a-half and Seventh streets SW.; 2 on P street, between Four-and-a-half and Water streets SW.; 3 on north side Pennsylvania avenue, between Madison and Jackson places.

Maintained by United States Electric Lighting Company.—One on north side H street, between Delaware avenue and Second street NE.; 1 on north side H street, between Second and Third streets NE.; 1 on north side H street, between Third and Fourth streets NE.; 24 on H street, from Fifth to Fifteenth street NE.; 2 on F street, between Sixth and Seventh streets NW.; 1 at corner Sixth and F streets NW.; 2 on G street, between Sixth and Seventh streets NW.; 1 at corner Sixth and G streets NW.; 1 on G street, between Fifth and Sixth streets NW.; 3 on G street, between Fourth and Fifth streets NW.; 1 at southwest corner Ninth street and New York avenue NW.; 1 at southeast corner Fourteenth street and New York avenue NW.

The following table shows the number of lamps of all kinds in use on the 1st day of July, 1897, as compared with the 1st day of July, 1896:

	1896.	1897.
Gas	5,875	6,05
Collis		1
Naphtha	1,064	1,07
Incandescent	70	21
Arc	348	50
Total	7,357	7,35

Increase during the year, 496.

The changes have been as follows:

	Relighted.	Added.	Discontinued.
Gas	32	425	27
Collis		1	
Naphtha	10	229	23
Incandescent		144	
Arc		160	
Total	42	959	50

Increase during the year, 496.

It is urgently recommended that Congress be requested to set aside about $2,00 or $3,000 of the street-lighting fund to be expended by the Commissioners fo experimental lighting, with the view of improving and increasing the efficienc of the service. Under the present law, which fixes the consumption of gas lamp at 5 cubic feet per hour, Welsbach or other improved burners can not be used Welsbach lights are meeting with favor in many large cities, where they give splendid service. In Washington they would be of great value in lighting thos resident streets traversed by street railway lines, since considerable objection ha been raised to the introduction of arc lamps in such sections. Welsbach burner consume less gas and give more light than the ordinary gas-burner. They are however, more expensive to maintain, it being impossible to operate them at th maximum of $20 per lamp fixed by the appropriation act. For this reason, an because they do not burn 5 cubic feet, they have not been introduced. Were thi

pecial proviso made in the law, such lamps could be tried, and if proved satisactory could be provided for permanently.

The recommendations of previous years for a clerk in this office and for an inrease in the salary of the superintendent are made again, with the statement that he increasing amount of work required of this department renders such additions nperative.

Respectfully submitted.

H. D. MANKIN,
Superintendent of Lamps.

Capt. W. M. BLACK,
Engineer Commissioner, District of Columbia.
(Through Capt. Edward Burr.)

Financial statement for the fiscal year 1897.

STREET LIGHTING.

RECEIPTS.

Appropriation		$150,000.00
Received from Baltimore and Potomac Railroad Company for maintenance of lamps along their tracks		3,067.21
Received from Baltimore and Ohio Railroad Company for maintenance of lamps along their tracks		371.17
Total		153,438.38

EXPENDITURES.

Gas lighting:		
Washington Gaslight Company	$112,178.11	
Deductions for defective service	113.23	
		112,064.88
Georgetown Gaslight Company	9,020.04	
Deductions for defective service	66.95	
		8,853.09
Naphtha lighting:		
Pennsylvania Globe Gaslight Company	21,449.34	
Deductions for defective service	68.92	
		21,380.42
Incandescent lighting:		
Potomac Electric Power Company	4,187.57	
Deductions for defective service	188.17	
		3,999.40
Erecting new lamps:		
Washington Gaslight Company	1,056.00	
Pennsylvania Globe Gaslight Company	460.00	
		1,516.00
Moving and resetting lamps:		
Washington Gaslight Company	199.00	
Georgetown Gaslight Company	8.00	
Pennsylvania Globe Gaslight Company	102.00	
		309.00
Reerecting broken posts:		
Washingtoln Gaslight Company	55.00	
Georgetown Gaslight Company	12.50	
Pennsylvania Globe Gaslight Company	6.00	
		73.50
Taking down old posts:		
Washington Gas Light Company	177.00	
Pennsylvania Globe Gas Light Company	61.00	
		238.00
Changing one lamp from naphtha to gas		5.50
Lamp-posts		1,686.72
Cross-arms		25.00
Square copper lanterns		1,260.00

EXPENDITURES—continued.

Boulevard lanterns	
Street sign frames	
Glass street signs	
Collis corner lamp	
Brackets for street-sign frames	
Brackets for lamps	
Domes and globes for boulevard lamps	
Paints	
Services of painter	
Lumber for shelves	
Services of carpenter	
Repairing cuts in pavements	
Carting lanterns, frames, etc	
Carting lamp-posts	
Sundries	
Total	158

ELECTRIC LIGHTING.

RECEIPTS.

Appropriation	$50
Received from Baltimore and Potomac Railroad for maintaining lamps along their tracks	
Total	5(

EXPENDITURES.

Arc lighting:		
United States Electric Lighting Company	$38,273.81	
Deductions for defective service	162.35	
		$3
Potomac Electric Power Company	5,122.97	
Deductions for defective service	12.69	
Expenses of inspection:		
Salaries of inspectors	2,654.50	
Repairs to bicycles	95.35	
Testing instruments	311.56	
Total		4

REPORT ON ELECTRIC WIRES AND CONDUITS.

WASHINGTON, D. C., *August (*

The increasing amount of electrical work in the District, the extens additions to existing telegraph, telephone, electric-light, power, and railw both overhead and underground, and the introduction of new companies v methods and new construction, have created a demand for closer inspec supervision on the part of the District. No department exists in the Dist ernment corresponding to the electrical bureau of Philadelphia, the (subway commission of Brooklyn, the wire department of Boston, and departments in the other large cities. The need for such a branch of government has been felt more than ever during the past year. The inspection of the various classes of construction mentioned above has h been given to different departments, with no systematic method to be follc nor no accurate records to be kept. An attempt was made to consolidate by dividing it between the street-lighting department and one branch of face department, the former controlling all matters pertaining to elec wires and all underground conduits, the latter all telegraph and telephc and poles. This division of the work was necessary on account of the n

other duties each department had to perform, but the overhead and the underground systems are so closely allied that such an assignment is undesirable and unsatisfactory.

It is urgently recommended that Congress be asked to make such provision for this work that it can be brought under one department not already overburdened with other duties, by creating a new department if necessary. The operations of such a department would cover a wide field, which would embrace all public electric-lighting, overhead-wire, and underground conduit systems; District fire-alarm and police telegraph and telephone service; electric-railway systems (both overhead and underground), electric-meter testing and inspection, the question of the electrolytic corrosion of underground pipes, and in fact all matters of an electrical nature. The need for this department was recognized several years ago, when the electrical commission made their report to Congress in 1891. Their recommendations were as follows (see House Ex. Doc. No. 15, Fifty-second Congress, first session, pp. 19 and 20):

"We recommend the creation of a permanent electrical bureau to supervise all electrical work in the District and to enforce all regulations relating thereto. Its duties should be:

"To have charge of the fire-alarm and police-signal service.

"To direct and supervise the construction of electrical conduits, the erection of poles, and placing of wires and all other appliances for electrical service by the District government, and to inspect the electrical appliances belonging to private individuals or corporations under permits or franchises.

"To make periodical inspections and reports of all electrical appliances in the District."

CONDUITS.

According to law the Commissioners advertised in June, 1896, for bids for electric arc lighting for the fiscal year 1897. Two proposals were received, one a formal bid from the Potomac Electric Power Company, offering to maintain all arc lamps west of Rock Creek at $94.90 per lamp per annum and all additional lamps east of Rock Creek at $100, the other an informal bid from the United States Electric Lighting Company, claiming the exclusive right to maintain public arc lamps in the District and offering to do the work at the maximum price allowed by the law, namely, $109.50. Among the streets on which new lamps were to be established were several in which neither company had conduits, and as all public lighting is required to be done by underground wires new conduits had to be constructed. The Potomac Electric Power Company, whose operations had previously been confined to that portion of the District west of Rock Creek, claimed that they had the right under the existing law to build the necessary conduits for this extension of the public service, since they were the lowest bidders.

The Commissioners, taking this view of the case, attempted to enter into contract with the company for the performance of this work, but were prevented from doing so by a temporary injunction obtained by the United States Company. After several months' delay a decision was rendered sustaining the Commissioners and refusing a permanent injunction. An appeal to the court of appeals resulted in a further confirmation of the right of the Commissioners to issue permits for the new construction. Contract with the Potomac Company was executed December 17, 1896, and permits issued for opening the streets on December 21, 1896. Work was begun immediately on M street at Rock Creek and rapidly pushed to completion. As the work progressed four gangs were employed on different sections covered by the permits, necessitating the employment of four inspectors to supervise the construction in the interests of the District. The services of these men were paid for by the Potomac Electric Power Company.

The greater portion of the conduit was composed of single terra-cotta pipe, of rectangular cross section, placed on a bed of concrete 4 inches thick, with 3 inches of concrete on both sides and top. A few sections of cement-lined iron pipe were laid, as well as a short length of four-way terra-cotta pipe. Work was begun on December 24 and finished on February 27.

The following table shows the length of conduit laid under these permits:

Length of conduit laid by Potomac Electric Power Company, in Washington, e of Rock Creek, under permits dated December 21 and December 31, 1896, Jar ary 11, January 30, and February 18, 1897.

Location.	Number of ducts.	Length of conduit.	Length of duct.	Public arc connection.		Manholes	
				Number.	Feet.	Large.	Sm
		Feet.	*Feet.*				
M street, from Rock Creek to Eighteenth street	12	3,639	43,668	.....	.....	12	.....
Eighteenth street, from M to I street	12	1,574	18,888	.....	.....	5	.....
I street, from Eighteenth street to Connecticut avenue	12	904	10,848	.....	.....	3	.....
Connecticut avenue, from I to H street	12	495	5,940	.....	.....	2	.....
Jackson place, from H street to Pennsylvania avenue	12	445	5,340	.....	.....	1	.....
Pennsylvania avenue, from Jackson place to New York avenue	12	1,150	13,800	3	33	4	.....
New York avenue, from Fifteenth to Ninth street	12	3,070	36,840	16	502	10	
Thirteenth street, from H to K street	6	800	4,800	.....	.....	3	.....
Mount Vernon place, from Seventh to Ninth street	12	584	7,008	.....	.....	4	.....
Ninth street, from Mount Vernon place to U street	12	5,612	67,344	28	724	13	
Florida avenue, from U to Tenth street	12	1,226	14,712	7	193	7	.....
Florida avenue, from Seventh to Ninth street	12	642	7,704	3	33	5	
Massachusetts avenue, from Seventh to Fifth street	12	910	10,920	.....	.....	4	.....
Fifth street, from Massachusetts avenue to D street	12	2,248	26,976	12	336	8	
D street, from Fifth to Four-and-a-half street	12	343	4,116	1	7	1	.....
D street, from Four-and-a-half to Fourth street	9	389	3,501	2	14	1	
Indiana avenue, from Fourth to I street	9	1,156	10,404	.....	.....	6	.....
C street, from First street west to Second street east	9	2,515	22,635	.....	.....	10	
Second street, from C to East Capitol street	6	1,442	8,652	.....	.....	4	.....
East Capitol street, from Second to Eleventh street	6	3,472	20,832	.....	.....	10	
Four-and-a-half street, from D street N. to P street S	12	8,443	101,316	39	1,124	24	
P street, from Four-and-a-half to Water street	6	436	2,616	2	10	1	
L street, from Four-and-a-half to Seventh street	6	1,229	7,374	4	49	2	
Missouri avenue, from Four-and-a-half to Sixth street	6	618	3,708	3	44	1	
Total	.....	43,342	459,942	120	3,069	141	

Length of conduit in miles 8
Length of duct in miles 87

Kind of conduit laid east of Rock Creek.

Description of conduit.	Feet of conduit.	Feet of duct.	Miles duc
Cement-lined iron pipe	1,104	13,248	
Potomac single terra-cotta pipe	2,043	24,516	
Potomac multiple terra-cotta pipe	87	696	
Camp single terra-cotta pipe	40,108	421,482	7
Total	43,342	459,942	8

Under authority granted by the appropriation act for the year 1897 the Comm sioners issued permits to the Potomac Electric Power Company to construct miles of conduits in Georgetown, in addition to that necessary to place their ex

ing overhead lines underground. The following table shows the location and length of conduit laid under these permits:

Length of conduit laid by Potomac Electric Power Company in Washington, west of Rock Creek, under permits dated July 14, 1896, and February 24, 1897.

Location.	Number of ducts.	Length of conduit.	Length of duct.	Public arc connections.		Manholes.	
				Number.	Feet.	Large.	Small.
		Feet.	*Feet.*				
Thirty-third street, between power house and M street	16	379	6,064			2	
Thirty-second street, between M and U streets	12	3,357	39,984	6	189	10	11
Thirty-second street, between U street and Tunlaw road	9	3,228	29,052			11	
Thirty-second street, between Tunlaw road and city limits	6	679	4,074			3	
U street, between Thirty-second street and Observatory Place	6	697	4,182			3	
M street, between Thirty-third and Thirty-second streets	16	985	14,960	3	25	3	6
M street, between Thirty-third and Thirty-sixth streets	12	1,258	15,096	5	45	7	7
M street, between Thirty-second street and Rock Creek	12	2,000	24,000	9	285	7	11
Thirty-first street, between M street and post-office *a*	2	245	490	1	245		1
Total		12,778	138,502	24	789	46	36

a Public arc light connection not included in total.

Length of conduit in miles	2.37
Length of duct in miles	26.02

Kind of conduit laid west of Rock Creek.

Description.	Feet of conduit.	Feet of duct.
Cement-lined iron pipe	8,149	97,354
Camp single terra cotta pipe	4,384	40,058
Total	12,533	137,412

During May and June the United States Electric Lighting Company extended their conduits to Columbia Heights under authority granted by the appropriation act for 1897 and under permits dated May 15 and June 1, 1897. Potomac four-way terra-cotta pipe was laid on both sides of Fourteenth street from Florida avenue to Whitney avenue, with a branch conduit on Clifton street between Thirteenth and Fourteenth streets. An inspector from this office was detailed temporarily to supervise the work, his services being paid for by the company. The following table shows the conduit laid under these permits:

Length of conduit laid by United States Electric Lighting Campany under permits dated May 15 and June 1, 1897.

Location.	Number of ducts.	Feet of conduit.	Feet of duct.	Manholes.	
				Large.	Small.
Fourteenth street, from Florida avenue to Whitney avenue	4	6,475.4	25,901.6	25	21
Clifton street, between Thirteenth and Fourteent streets	4	643.8	2,575.2	2	5
Total		7,119.2	28,476.8	27	26

Length of conduit in miles	1.34
Length of duct in miles	5.39

Under the authority granted by the same act permits were issued to the Un States Electric Lighting Company to extend their conduits on Sixteenth s from S to Prospect street, with the intention of ultimately reaching Mount P ant as soon as the grade of Sixteenth street north of Florida avenue is establi and the street opened to its full width; also, to lay conduits out Columbia r Connecticut avenue extended, and side streets in Washington Heights.

Under these permits the following conduits were laid:

Location.	Number of ducts.	Feet of conduit.	Feet of duct.	Manholes.		Ha ho
				Large.	Medium.	
Sixteenth street, from S to Prospect street	4	2,269	9,076	8	5	
Connecticut avenue and Columbia road	4	1,998.7	7,993.8	9	2	
Wyoming avenue	2	944.9	1,889.8	2	1	
Total	.....	5,210.6	18,954.6	19	8	
Miles of conduit						
Miles of duct						

Upon their application, a permit was granted on June 2, 1897, to the Chesap and Potomac Telephone Company to repair their conduits on Fifteenth street, manhole between O and P streets to and into alley between R and S streets N square 207; from east side of Fourteenth street, between G street and New avenue, west on New York and Pennsylvania avenues to Seventeenth street, th to G street, thence to cable pole near corner of Twenty-second and G streets, branch lines into alleys in squares 121, 160, 166, and 214.

This repairing consisted in abandoning the old cables laid in asphalt along above routes, taking out the portions uncovered, and substituting multiple-terra-cotta pipe, thereby changing that portion of their underground constru from a solid to a drawing-in system. The work was supervised by an insp from this office, whose services were paid for by the company. Work on the teenth-street branch was begun on June 7, 1897, and finished on June 25, 1897. the other branch it was begun June 12, 1897, and completed July 30, 1897.

The following table shows the length of conduit laid under this permit.

Length of conduit laid by the Chesapeake and Potomac Telephone Company u permits dated June 2, 1897.

Location.	Number of ducts.	Feet of conduit.	Feet of duct.	Manhol	
				Large.	S
Fifteenth street, from O to S street	6	1,543.4	9,260.4	5	..
Into alley, square 207	1	169.6	169.6	.....	..
New York avenue, from Fourteenth to Fifteenth street	8	560.6	4,484.8	5	..
Pennsylvania avenue, from Fifteenth to Seventeenth street	8	1,675.9	13,407.2	7	..
Seventeenth street, between Pennsylvania avenue and G street	8	224.3	1,794.4	1	..
G street, between Seventeenth and Nineteenth streets	8	1,159	9,272	5	..
G street, between Nineteenth and Twenty-second streets	6	1,558.5	9,351	4	..
Nineteenth street, between F and G streets	2	150.5	301	.....	
Into alley, square 121	1	133	133	.....	..
Into alley, square 169	1	146	146.2	.....	..
Pennsylvania avenue, between Seventeenth and Eighteenth streets	2	373.4	746.8	2	..
Into alley, square 166	1	86	86	.....	..
Into alley, square 214	1	247	247	.....	..
Total	.....	8,027.2	49,399.4	29	
Length of conduit in miles					
Length of duct in miles					

Conduits of the Chesapeake and Potomac Telephone Company, May 1, 1897.a

MAIN CONDUITS.				
Conduit.		Number of ducts.	Duct.	
Feet.	Inches.		Feet.	Inches.
76	0	72	5,472	0
176	3	64	11,280	0
748	9	56	41,930	0
1,534	5	40	61,376	8
26	0	36	936	0
465	6	32	14,896	0
304	6	25	7,612	0
2,072	1	24	49,730	0
26	0	20	520	0
1,576	3	18	28,372	6
636	0	17	10,812	0
5,824	9	16	93,196	0
212	0	13	2,756	0
4,963	2	12	59,558	0
114	0	9	1,026	0
14,470	2½	8	115,761	8
82	6	7	577	6
20,009	6	6	120,057	0
65	0	4	262	0
53,357	4½		626,131	10
BRANCH CONDUITS.				
2,943	7	2	5,887	2
14,616	6	1	14,616	6
17,560	1		20,503	8

a Furnished by the company.

Seventy-one thousand nine hundred and seventeen feet five and one-half inches of conduit, containing 646,635 feet 6 inches of duct; 13.5 miles of conduit, containing 122.5 miles of duct.

The removal of the main offices of the Postal Telegraph-Cable Company from F street, between Fourteenth and Fifteenth streets NW., to the north side of Pennsylvania avenue near Fourteenth street, necessitated building a short additional length of conduit to connect their underground system with their new offices. Under permit issued September 17, 1897, they laid 589 feet of four-duct terra-cotta conduit.

During the year a complete set of maps, covering those portions of the District in which there are underground conduits, has been made, drawn to a scale of 50 feet to the inch, on which the majority of the conduits have been carefully plotted. These maps form an invaluable record, and will be kept up to date.

The following tables are made up from data taken from these maps and from information furnished by the respective companies:

Summary of conduits, September 1, 1897.

Company.	Conduit.		Duct.	
	Feet.	Miles.	Feet.	Miles.
United States Electric Lighting Co.:				
Inside city limits	215,320	40.78	(a)	(a)
Outside city limits	12,329.8	2.33	47,431.4	8.98
Potomac Electric Power Co	55,875	10.58	597,354	113.13
Chesapeake and Potomac Telephone Co	79,944.7	15.02	696,034.9	131.82
Postal Telegraph-Cable Co	14,074	2.66	14,074	2.66
Western Union Telegraph Co	4,105	.77	4,105	.77
Metropolitan Railroad Co. b				

a Record not complete. b No record.

OVERHEAD WIRES.

The appropriation act of March 4, 1897, recognized all existing overhead wires (except those west of Rock Creek inside of the fire limits) and legalized them by authorizing the Commissioners to permit connections to be made to them. In order to complete the record of the wires as far as they relate to electric lighting and power, two men from the United States Electric Lighting Company and an inspector from this office made a thorough inspection of the overhead system of that company and carefully noted each wire, whether main, feeder, or service. These were plotted on a set of tracings on a scale of 50 feet to the inch, and upon completion were signed by Captain Burr, assistant to the Engineer Commissioner for the District, and by Mr. A. A. Thomas, president of the United States Electric Lighting Company, for the company. These maps will not be altered or changed in any way, but will be kept as a permanent record of the wires legalized by the above-mentioned act and in existence on the date of its passage.

A similar set of maps, though on a scale of 100 feet to the inch, has also been made of the wires of the Potomac Electric Power Company, and will be similarly certified to and preserved.

The following table shows the length of overhead wires belonging to the two electric-light companies, and in existence on July 1, 1897:

Length of overhead electric light and power wires in existence July 1, 1897.

Company.	Pole line.	Arc wires.			Incandescent wires.		
		Streets.	Alleys.	Services.	Streets.	Alleys.	Services.
United States Electric Lighting Co.	*Feet.* 51,232	114,241	1,525	10,072	193,583	28,040	69,263
Potomac Electric Power Co. (west of Rock Creek)	63,306	.....	.....	.....	.....	.....	.....
Potomac Electric Power Co. (Eckington)	10,540	.....	.....	.....	.....	.....	.....
Total	125,078	114,241	1,525	10,072	193,583	28,040	69,263

Company.	Alternating wires.			Railway wires.	Wires on bridges.		Dead wires.
	Streets and roads.	Alleys.	Services.		Aqueduct Bridge.	Chain Bridge.	
United States Electric Lighting Co.	3,200	6,665	1,790	.....	.....	.....	57,054
Potomac Electric Power Co. (west of Rock Creek)	154,122	.....	4,753	34,320	8,598	a 16,340	67,940
Potomac Electric Power Co. (Eckington)	37,240	.....	1,880	.....	.....	.....	16,480
Total	223,362	6,665	8,423	34,320	8,598	16,340	141,474

a Dead.

Length of overhead electric light and power wires removed during fiscal year 1897.

Company.	Pole line.	Arc wires.			Incandescent wires.		
		Streets.	Alleys.	Services.	Streets.	Alleys.	Services.
United States Electric Lighting Co.	*Feet.* 3,260	5,279	.....	1,848	18,432	156	6,925
Potomac Electric Power Co.	3,605	.....	.....	.....	.....	.....	.....
Total	6,865	5,279	.....	1,848	18,432	156	6,925

Company.	Alternating wires.			Railway wires.	Wires on bridges.		Dead wires.
	Streets and roads.	Alleys.	Services.		Aqueduct Bridge.	Chain Bridge.	
United States Electric Lighting Co.	.....	.....	.....	.....	.....	.....	1,416
Potomac Electric Power Co.	32,812	.....	1,495	7,210	.....	.....	.....
Total	32,812	.....	1,495	7,210	.....	.....	1,416

Summary of overhead electric wires.

Company.	Pole line. Inside city limits. Feet.	Pole line. Inside city limits. Miles	Pole line. Outside city limits. Feet.	Pole line. Outside city limits. Miles	Arc light wires inside city limits. Feet.	Arc light wires inside city limits. Miles.	Incandescent wires inside city limits. Feet.	Incandescent wires inside city limits. Miles.	Alternating wires inside city limits. Feet.	Alternating wires inside city limits. Miles
United States Electric Lighting Co	51,222	9.70	.....	.....	125,838	23.83	290,886	55.09	11,655	2.21
Potomac Electric Power Co	1,361	.25	72,485	13.72	.....	.....	.....	.....	2,722	.51
Total	52,593	9.95	72,485	13.72	125,838	23.83	290,886	55.09	14,377	2.72

Company.	Alternating wires outside city limits. Feet.	Alternating wires outside city limits. Miles.	Railway wires outside city limits. Feet.	Railway wires outside city limits. Miles	Bridge wires. Live, Aqueduct Bridge. Feet.	Bridge wires. Live, Aqueduct Bridge. Miles	Bridge wires. Dead, Chain Bridge. Feet.	Bridge wires. Dead, Chain Bridge. Miles.	Dead wires. Feet.	Dead wires. Miles
United States Electric Lighting Co	.....	.....	.....	.....	.....	.....	.....	.....	a57,054	10.80
Potomac Electric Power Co	195,273	36.98	34,320	6.5	8,598	1.63	16,340	3.09	b84,420	15.98
Total	195,273	36.98	34,320	6.5	8,598	1.63	16,340	3.09	141,474	26.78

a Inside city limits. b Outside city limits.

ARC LIGHTING.

Two arc-light systems for street lighting are employed in the District. The United States Electric Lighting Company use Thomson-Houston double-carbon series lamps, supplying current from both Thomson-Houston 50-arc and Brush 125-arc machines. The system adopted by the Potomac Electric Power Company is radically different. They use Adams-Bagnall focusing arc lamps, designed for railway circuits, placing 8 lamps in a series, with adjustable resistance across 500-volt feeders. Current is supplied from two large 10-pole direct connected railway generators, General Electric type, which also furnish current for several trolley roads in the suburbs.

The two kinds of lamps compare very favorably in illuminating power, the Adams-Bagnall lamps feeding more evenly and flickering less than the others. They require large, soft carbons, some of which are cored, during the long hours of burning in winter, as they are single-carbon lamps. The disadvantage in using soft carbons is that the globes become coated inside with a white dust which is hard to remove.

An advantage that this system has over the series system is in the matter of outages. A short circuit or burn-out in the cable of the latter system will frequently extinguish a whole circuit of from 40 to 50 lamps, while with the railway lamps such an accident in any distributing cable will cut out not more than 8. If the trouble should occur in the large feeding cable, only those lamps on the side away from the power house are affected.

The following table gives a comparison of the two systems with respect to the outage reported:

Table showing outages of arc lamps.

Month.	Number of lamps maintained. Potomac Electric Power Co.	Number of lamps maintained. United States Electric Lighting Co.	Number reported out. Potomac Electric Power Co.	Number reported out. United States Electric Lighting Co.	Maximum out in any one night. Potomac Electric Power Co.	Maximum out in any one night. United States Electric Lighting Co.
February, 1897	95	336	18	60	10	28
March, 1897	145	363	54	348	14	63
April, 1897	145	363	18	93	9	23
May, 1897	145	363	26	226	10	47
June, 1897	145	363	13	194	5	35
July, 1897	131	436	20	158	8	69
August, 1897	131	446	25	376	10	84

The laws relating to the subject of electric lighting in the District of Columbia, and which also have a bearing on the construction of conduits and overhead wires and poles, are given below. Other data relating thereto will be found in the printed report of the hearings before the Senate Committee on the District of Columbia. (Senate Doc. No. 92, Fifty-fourth Congress, second session.)

LEGISLATION ON THE SUBJECT OF ELECTRIC LIGHTING.

Appropriation act for year ending June 30, 1883.—For street lamps: For illuminating material, and lighting, repairing and cleaning, and extinguishing lamps on streets and alleys, one hundred and six thousand two hundred and fifty dollars; and hereafter all railroad companies using engines propelled by steam shall provide for the lighting of the streets, avenues, alleys, and grounds through which their tracks may be laid, under the direction and control of the Commissioners; purchase and erection of new lamps and posts, five hundred dollars; one superintendent, nine hundred dollars; repairs to pumps, three thousand dollars; cleaning tidal sewers, three thousand dollars: *Provided*, That no more than twenty-five dollars per annum for each street lamp shall be paid for gas, lighting, extinguishing, repairing, and cleaning, under any expenditure provided for in this act; and in case a contract can not be made at that rate, the Commissioners of the District of Columbia are hereby authorized to substitute other illuminating material, and to use so much of the sum hereby appropriated as may be necessary for that purpose: *Provided further*, That the Commissioners of the District of Columbia shall not be authorized to make any contract for gas or other illuminating material, in accordance with the provisions of this paragraph, for any longer period than one year.

Appropriation act for year ending June 30, 1884.—For street lamps: For illuminating material and lighting, extinguishing, repairing, and cleaning lamps on avenues, streets, and alleys, and for purchasing and erecting new lamp-posts, and to replace such as are old, damaged, and unfit for use, ninety-five thousand three hundred and eighty dollars; and hereafter all railroad companies using engines propelled by steam shall pay to the District for the lighting of the streets, avenues, alleys, and grounds through which their tracks may be laid, under the direction and control of the Commissioners; and in case of default of payment of such bills, actions at law may be maintained by the District of Columbia against said railroad companies therefor: *Provided*, That no more than twenty-two dollars per annum for each street lamp shall be paid for gas, lighting, extinguishing, repairing, and cleaning, under any expenditure provided for in this act. And in case a contract can not be made at that rate, the Commissioners of the District of Columbia are hereby authorized to substitute other illuminating material for the same or less price, and to use so much of the sum hereby appropriated as may be necessary for that purpose: *Provided further*, That the Commissioners of the District of Columbia shall not be authorized to make any contract for gas or other illuminating material, in accordance with the provisions of this paragraph, for any longer period than one year.

Appropriation act for year ending June 30, 1885.—For street lamps: For illuminating material and lighting, extinguishing, repairing, and cleaning lamps, on avenues, streets, and alleys, and for purchasing and erecting new lamp-posts, and to replace such as are old, damaged, and unfit for use, ninety-five thousand three hundred and eighty dollars: *Provided*, That no more than twenty-two dollars per annum for each street lamp shall be paid for gas, lighting, extinguishing, repairing, and cleaning, under any expenditure provided for in this act; and said lamps shall not burn less than two thousand six hundred hours per annum; and the Commissioners of the District of Columbia are authorized to substitute other illuminating material for the same or less price, and to use so much of the sum hereby appropriated as may be necessary for that purpose: *Provided further*, That the Commissioners of the District of Columbia shall not be authorized to make any contract for gas or other illuminating material, in accordance with the provisions of this paragraph, for any longer period than one year.

Appropriation act for year ending June 30, 1886.—Exactly similar to paragraph for preceding year, except that $100,000 is appropriated.

Appropriation act for year ending June 30, 1887.—For street lamps: For illuminating material and lighting, extinguishing, repairing, and cleaning lamps on avenues, streets, and alleys, and for purchasing and erecting new lamp-posts, and to replace such as are old, damaged, and unfit for use, one hundred thousand dollars: *Provided*, That no more than twenty dollars per annum per lamp for each street lamp shall be paid for gas, lighting, extinguishing, repairing, and cleaning under any expenditure provided for in this act; and said lamps shall not burn less than two thousand six hundred hours per annum; and the Commissioners are

uthorized, in their discretion, to substitute other illuminating material at the ame or less price, and to use so much of the sum hereby appropriated as may be ecessary for that purpose; but not exceeding ten thousand dollars of the above mount may be used in providing electric lights on one or more of the principal horoughfares of the city, without regard to this limitation: *Provided further*, hat the Commissioners of the District of Columbia shall not be authorized to ake any contract for gas or other illuminating material, in accordance with the rovisions of this paragraph, for any longer period than one year.

Appropriation act for year ending June 30, 1888.—Exactly similar to paragraph or preceding year, except that it appropriated a total of $120,000, and contains he following clause regarding electric lighting in lieu of that for the preceding ear: * * * "but not exceeding twenty thousand dollars of the above amount nay be used in providing electric lights on one or more of the principal thorough- fares of the city, without regard to this limitation, but at the lowest reasonable price obtainable." * * *

Appropriation act for year ending June 30, 1889, makes separate appropriation for electric lighting, as follows:

"For electric lighting, including necessary expenses of inspection, on one or more of the principal streets of the cities of Washington and Georgetown, thirty thousand dollars: *Provided*, That no more than fifty cents shall be paid for each light per night burning from sunset to sunrise, and each light shall be of not less than one thousand actual candlepower."

And under the head of "Telegraph and telephone service" the following:

"The Commissioners of the District of Columbia shall not, after the fifteenth day of September, eighteen hundred and eighty-eight, permit or authorize any additional telegraph, telephone, electric lighting or other wires to be erected or maintained on or over any of the streets or avenues of the city of Washington, and the said Commissioners are hereby directed to investigate and report to Congress at the beginning of its next session the best method of interring the same under ground, and such legal regulation thereof as may be needed; and they shall report what manner of conduits should be maintained by the city of Washington, if any, and the cost of constructing and maintaining the same, and what charge, if any, should be made by the city for the use of its conduits by the persons or corporations placing wires therein, and upon what terms and conditions the same should be used when required so to do, and for such investigation one thousand dollars is hereby appropriated: *Provided*, That the Commissioners of the District of Columbia may, under such reasonable conditions as they may prescribe, author- ize the wires of any existing telegraph, telephone, or electric light company now operating in the District of Columbia to be laid under any street, alley, highway, footway, or sidewalk in the District whenever, in their judgment, the public inter- est may require the exercise of such authority; such privileges as may be granted hereunder to be revocable at the will of Congress without compensation, and no such authority to be exercised after the termination of the present Congress."

This Congress, the Fiftieth, expired March 3, 1889.

Appropriation act for year ending June 30, 1890.—For electric lighting, includ- ing necessary inspection on one or more of the principal streets of the cities of Washington and Georgetown, including the south side of Pennsylvania avenue, forty thousand dollars: *Provided*, That no more than sixty cents per night shall be paid for any light burning from sunset to sunrise and operated wholly or in part by overhead wires; and each arc light shall be of not less than one thousand actual candlepower, and no part of this appropriation shall be used for electric lighting after September thirtieth, eighteen hundred and eighty-nine, by means of wires that may exist on or over any of the streets or avenues of the cities of Washington and Georgetown: *Provided further*, That the Commissioners of the District of Columbia shall investigate, ascertain, and report to the first session of the Fifty-first Congress what deduction may be made for gas and electric lighting, both for annual and for five-year contracts; and that they be authorized to invite proposals for supplying said light at reduced rates, and in this they are not limited to any one system.

Same act, under head of "Telegraph and telephone service," provided as follows:

"That the Commissioners of the District of Columbia may hereafter, under such reasonable conditions as they may prescribe, authorize the overhead wires of any telegraph, telephone, or electric light company to be laid under any street, alley, highway, footway, or sidewalk in the District, whenever in their judgment the public interest may require the exercise of such authority, such privileges as may be granted hereunder to be revocable at the will of Congress without compensa- tion, and this authority to continue only until the termination of the Fifty-first Congress."

The Fifty-first Congress expired March 3, 1891.

Appropriation act for year ending June 30, 1891.—For electric lighting, including necessary expenses of inspection, on one or more of the principal streets of the cities of Washington and Georgetown, including the south side of Pennsylvania avenue, and two arc lights for Freedmen's Hospital and Asylum, forty-six thousand dollars: *Provided*, That no more than sixty cents per night shall be paid for any lights burning from sunset to sunrise, and no more than forty cents per night shall be paid for any light burning from sunset to sunrise and operated wholly or in part by overhead wires; and each arc light shall be of not less than one thousand actual candlepower, and no part of this appropriation shall be used for electric lighting after September thirtieth, eighteen hundred and ninety, by means of wires that may exist on or over any of the streets or avenues of the cities of Washington and Georgetown: *Provided further*, That the Commissioners of the District of Columbia shall investigate, ascertain, and report to the second session of the Fifty-first Congress what deductions may be made for gas and electric lighting, both for annual, five-year, and ten-year contracts, and that they be authorized to invite proposals for supplying said light at reduced rates, and in this they are not limited to any one system.

The same act, under head of "Telegraph and telephone service," provided as follows:

"The President of the United States is hereby authorized to appoint a board consisting of three persons, one of whom shall be an army engineer, skilled in electric matters, one a civil engineer of known skill and experience in municipal engineering, and one an expert electrician of high repute: *Provided*, That not more than one member shall be a resident of the District of Columbia; and no member shall be in the employ of any electric company, or shall have any interest in the business or securities of such company, or be interested in any patent or any form of conduit or subway, or device pertaining thereto. Said board shall consider the location, arrangement, and operation of electric wires in the District of Columbia, whether used, or to be used, for electric lighting, transmission of power, telegraphy, telephony, or signalling, with a view to securing, as soon as practicable, the construction of a safe and convenient system of conduits and subways, the placing therein of all necessary electric wires along the streets, avenues, and other public spaces, and the removal of all unused overhead wires, and their supports. To this end, the board will, as soon as practicable, and not later than December first, eighteen hundred and ninety-one, report to the President, who shall submit the same to the first session of the Fifty-second Congress, as follows:

"First. Recommendations for a complete system of conduits or subways, with all suitable branches, connections, and appurtenances for the safe and efficient operation therein of the necessary cables and conductors. Such recommendations shall be accompanied by maps, detailed drawings, and estimates of cost.

"Second. Opinion as to whether the conduits or subways should be built, owned, and operated by private corporations or individuals, subject to public control, or constructed and maintained by public authority and leased to companies or individuals. If the latter, recommendation will be made as to the terms and conditions upon which such leases should be executed.

"Third. Also recommendations concerning the construction, location, operation, and maintenance of underground cables and conductors, carrying currents of different intensities, with a view to promote the public safety, and to secure the most convenient and efficient use of such cables and conductors, and the appliances connected therewith.

"Fourth. Recommendations as to the restrictions, if any, which should be imposed by law upon the character and intensity of electric currents conveyed by conductors situated over or under the public streets, avenues, and spaces, and used for electric lighting, transmission of power, telegraphy, telephony, or signalling.

"Fifth. Recommendations respecting the regulation of, the arrangement and use of authorized overhead wires.

"To meet the expenses of the said board, there is hereby appropriated the sum of ten thousand dollars, or so much thereof as may be necessary: *Provided*, That the officer detailed from the Corps of Engineers shall not receive any salary except that due to his rank."

The sundry civil appropriation act for year ending June 30, 1891, provided as follows:

"For introducing electric lamps and wires into the Executive Mansion and connecting the same by underground cable with the source of electricity, seven thousand seven hundred dollars; and the sum appropriated for the purchase of gas may be applied to the purchase of gas or electric light.

"For electric lights for three hundred and sixty-five nights, from seven posts, at forty cents per light per night, one thousand and twenty-two dollars."

Appropriation act for year endtng June 30, 1892.—For electric lighting, including ecessary expenses of inspection, on one or more of the principal streets of the ties of Washington and Georgetown, maintaining existing service and necessary rtensions, fifty-nine thousand five hundred dollars: *Provided*, That no more than fty cents per night shall be paid for any electric arc light burning every night om sunset to sunrise, and operated wholly by means of underground wires, and ich arc light shall be of not less than one thousand actual candlepower, and no art of this appropriation shall be used for electric lighting by means of wires that ay exist on or over any of the streets or avenues of Washington and Georgeown: *Provided*, That the Commissioners of the District of Columbia are hereby uthorized, in their discretion, to enter into contract for electric arc lights, which hall fulfill the conditions above specified for a period of three years from July st, 1891, at a price not to exceed fifty cents per lamp per night.

Same act, under head of "Telegraph and telephone service," provides as follows: "* * * *Provided*, That the board appointed under the provisions of the District of Columbia appropriation act, approved August sixth, eighteen hundred and ninety, to consider and report upon a system of conduits and subways and kindred matters, shall in addition submit a set of recommendations concerning a safe and efficient wiring of public and private buildings for all electric purposes: *Provided further*, That until action by Congress upon the report of the board appointed to consider the location, arrangement, and operation of electric wires in the District of Columbia, pursuant to the act approved August sixth, eighteen hundred and ninety, or until April first, eighteen hundred and ninety-two, whichever shall first occur, the Commissioners of the said District shall not permit the additional construction of more than five miles of conduits or subways in aggregate length for electric lighting purposes, nor more than five miles of conduits or subways in aggregate length for telephone service; this to apply to all permits heretofore granted or hereafter granted under existing law, all such permits to be revocable by Congress as heretofore provided, but not to apply to necessary street or house connections for electric service nor to changes of motive power on street railways, in compliance with existing law."

The sundry civil appropriation act for year ending June 30, 1892, provided as follows:

"For electric lights for three hundred and sixty-six nights, from seven posts, at forty cents per light per night, one thousand and twenty-four dollars and eighty cents."

Appropriation act for year ending June 30, 1893.—For electric lighting, including necessary expenses of inspection, on one or more of the principal streets, in the cities of Washington and Georgetown, maintaining existing service and necessary extensions, fifty-nine thousand five hundred dollars: *Provided*, That not more than fifty cents per night shall be paid for any electric arc light burning every night from sunset to sunrise, and operated wholly by means of underground wires; and each arc light shall be of not less than one thousand actual candlepower, and no part of this appropriation shall be used for electric lighting by means of wires that may exist on or over any of the streets or avenues of the cities of Washington and Georgetown.

Sundry civil appropriation act for year ending June 30, 1893, provides:

"For electric lights for three hundred and sixty-five nights, from seven posts, at forty cents per light per night, one thousand and twenty-two dollars."

[PUBLIC RESOLUTION—No. 13.]

A Joint Resolution providing for additional telegraphic and electric-light facilities in the city of Washington during the inaugural ceremonies on the fourth day of March, eighteen hundred and ninety-three.

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the Commissioners of the District of Columbia be, and they are hereby, authorized to permit the Western Union Telegraph Company and the United States Electric Company to extend overhead wires into the Pension building and to such points along the line of parade as shall be deemed by the chief marshal convenient for use in connection with the parade and other inaugural purposes, the said wires to be taken down within ten days after the conclusion of the ceremonies on the fourth day of March, eighteen hundred and ninety-three.

Approved, February 15, 1893.

Appropriation act for year ending June 30, 1894.—For electric lighting, including necessary expenses of inspection, on one or more of the principal streets in the cities of Washington and Georgetown, maintaining existing service and necessary

extensions, fifty-nine thousand five hundred dollars: *Provided*, That not more than fifty cents per night shall be paid for any electric arc light burning every night from sunset to sunrise, and operated wholly by means of underground wires; and each arc light shall be of not less than one thousand actual candlepower; and no part of this appropriation shall be used for electric lighting by means of wires that may exist on or over any of the streets or avenues of the cities of Washington and Georgetown: *Provided further*, That the Commissioners of the District of Columbia shall investigate, ascertain, and report to the first session of the Fifty-third Congress what deduction may be made for gas and electric lighting both for annual, five-year, and for ten-year contracts, and that they be authorized to invite proposals for supplying said light at reduced rates; and in this they are not limited to any one system or company.

The provision in the sundry civil appropriation act for the year ending June 30, 1894, for electric lighting in the Executive Mansion and public grounds was exactly similar to that of the preceding year.

Appropriation act for year ending June 30, 1895.—For electric lighting, including necessary expenses of inspection, on one or more of the principal streets in the cities of Washington and Georgetown, maintaining existing service, and necessary extensions, forty-seven thousand six hundred dollars: *Provided*, That not more than forty cents per night shall be paid for any electric arc light burning every night from sunset to sunrise, and operated wholly by means of underground wires; and each arc light shall be of not less than one thousand actual candlepower, and no part of this appropriation shall be used for electric lighting by means of wires that may exist on or over any of the streets or avenues of the cities of Washington and Georgetown.

The sundry civil appropriation act for year ending June 30, 1895, provided:

"For electric lights, for three hundred and sixty-five nights, from seven posts, at thirty cents per light per night, seven hundred and sixty-six dollars and fifty cents."

Appropriation act for year ending June 30, 1896.—For electric lighting, including necessary expenses of inspection, on one or more of the principal streets in the cities of Washington and Georgetown, maintaining existing service and necessary extensions, forty-seven thousand six hundred dollars: *Provided*, That not more than forty cents per night shall be paid for any electric arc light burning every night from sunset to sunrise, and operated wholly by means of underground wires, and each arc light shall be of not less than one thousand actual candlepower, and no part of this appropriation shall be used for electric lighting by means of wires that may exist on or over any of the streets or avenues of the cities of Washington and Georgetown.

The sundry civil appropriation act for year ending June 30, 1896, provides:

"For electric lights, for three hundred and sixty-five nights, from seven posts, at thirty cents per light per night, seven hundred and sixty-six dollars and fifty cents."

Appropriation act for year ending June 30, 1897.—For electric arc lighting, including necessary inspection, in those streets now lighted with electric arc lights, in the city of Washington, and for necessary extensions of such service, fifty thousand dollars: *Provided*, That not more than thirty cents per night shall be paid for any electric arc light burning from forty-five minutes after sunset to forty-five minutes before sunrise, and operated wholly by means of underground wires; and each arc light shall be of not less than one thousand actual candlepower, and no part of this appropriation shall be used for electric lighting by means of wires that may exist on or over any of the streets or avenues of the city of Washington: *Provided*, That the Commissioners of the District of Columbia may, under such reasonable restrictions as they may prescribe, authorize any existing electric light company, having overhead wires, to maintain and use for a period of eight months, and no longer, its existing poles and overhead wires west of Rock Creek, in places outside of the existing fire limits of the city of Washington, and of the District of Columbia, and any such overhead wire system may be extended west of Rock Creek, and outside of said fire limits, to continue only for said period of eight months, and at the end of said period all right or authority hereby conferred shall cease.

And the said Commissioners may also authorize any such existing electric light company to construct and use, under such regulations as the Commissioners may fix, conduits for the reception of existing overhead wires within the territory formerly known as Georgetown, and to extend the same by an aggregate of not more than one and one-fourth miles of conduit in the same territory. And the United States Electric Lighting Company may extend its underground conduits and wires east of Rock Creek, and within the said fire limits to Mount Pleasant,

d Washington, and Columbia Heights, under such regulations as the Commis-ners of the District of Columbia may prescribe.

The sundry civil appropriation act for the year ending June 30, 1897, provides:

"For electric lights, for three hundred and sixty-five nights, from seven posts, twenty cents per light per night, on grounds south of Executive Mansion, five ndred and eleven dollars.

"For electric lights, for three hundred and sixty-five nights, for not exceeding irty-two posts, in Lafayette, Franklin, Judiciary, and Lincoln parks, at twenty-ght cents per light per night, three thousand two hundred and seventy dollars id forty cents: *Provided*, That all wires shall be placed underground and that ie conduits, wires, lampposts complete shall be furnished by the electric light mpany without expense to the United States, and that twenty-eight cents per mp per night shall cover the entire cost to the United States of lighting and main-aining, in good order, each electric light in the parks mentioned."

The general deficiency act for year ending June 30, 1896, provides as follows:

"STREETS: For electric lighting, namely: For amount required to light Eckington nd West Eckington, being for the service of the fiscal year eighteen hundred and inety-six, five hundred dollars."

Appropriation act for the year ending June 30, 1898.—For electric lighting, ncluding necessary inspection, in those streets now lighted with electric arc lights n the city of Washington, fifty-five thousand dollars: *Provided*, That not more han twenty-five cents per night shall be paid for any electric arc lamp burning rom forty-five minutes after sunset to forty-five minutes before sunrise, and oper-ted wholly by means of underground wires; and each arc light shall be of not ess than one thousand actual candlepower, and no part of this appropriation hall be used for electric lighting by means of wires that may exist on or over any f the streets or avenues of the city of Washington. Until Congress shall pro-ride for a conduit system it shall be unlawful to lay conduits or erect overhead wires for electric lighting purposes in any road, street, avenue, highway, park, or reservation except as hereafter specially authorized by law: *Provided, however*, That the Commissioners of the District of Columbia are hereby authorized to issue permits for house connections, with conduits and overhead wires now existing adjacent to the premises with which such connection is to be made, and also permits for public-lighting connections with conduits already in the portion of the street proposed to be lighted. And nothing herein contained shall be construed to affect in any way any pending legislation involving the validity or invalidity or legality of the construction of any conduits made since June eighteenth, eighteen hundred and ninety-six, nor to prevent the United States Electric Lighting Company from extending conduits into Columbia Heights, Washington Heights, and Mount Pleasant, within the fire limits, as specifically provided in the act of June eleventh, eighteen hundred and ninety-six, making appropriations for the expenses of the government of the District of Columbia; and the existing overhead wires of the Potomac Electric Power Company west of Rock Creek and outside of the fire limits are hereby authorized to be maintained for a period of one year from the passage of this act and no longer.

Extension of fire-alarm telegraph.—For extension of the fire-alarm telegraph, including new boxes, purchase and erection of the necessary poles with cross arms, insulators, pins, and braces, wire for extension of lines, and extra labor for string-ing the wire, seven thousand five hundred dollars: *Provided*, That wherever there are telegraph or telephone poles, or telephone conduits, available for the use of the said fire alarm telegraph, the Commissioners of the District of Columbia are hereby authorized to make arrangements for the use of such poles or conduits without expense to the said District; and the authority granted to the said Commissioners in the District of Columbia appropriation act, approved August sev-enth, eighteen hundred and ninety-four, to authorize the erection and use of telephone poles in the alleys of the city of Washington shall be limited as follows: Hereafter no wire shall be strung on any alley pole at a height of less than fifty feet from the ground at the point of attachment to said pole; temporary permits may be granted by said Commissioners to string wires from cable poles, or from existing overhead trunk lines, to poles in, or to be erected in, alleys, and from alley poles in one square to alley poles, or house-top fixtures, in another square for the purpose of making necessary house connections from all cable poles and existing overhead trunk lines within the District of Columbia; such house connection to be made from the cable poles or overhead trunk lines nearest the subscriber. Nothing herein contained shall be deemed to authorize the erection of any addi-tional pole or poles upon any street, avenue, or public reservation within the said city; and such privileges as may be granted hereunder to be revokable at the will of Congress without compensation.

Sundry civil appropriation act for the year ending June 30, 1898.—For gas, pay of lamplighters, gas fitters, and laborers; purchase, erection, and repair of lamps and lamp-posts; purchase of matches, and repairs of all kinds; fuel and lights for office, office stable, watchmen's lodges, and for the greenhouses at the nursery, thirteen thousand dollars: *Provided*, That for each five-foot burner not connected with a meter in the lamps on the public grounds no more than twenty dollars shall be paid per lamp for gas, including lighting, cleaning, and keeping the lamps in repair, under any expenditure provided for in this act; and said lamps shall burn every night on the average from forty-five minutes after sunset to forty-five minutes before sunrise; and authority is hereby given to substitute other illuminating material for the same or less price, and to use so much of the sum hereby appropriated as may be necessary for that purpose: *Provided*, That before any expenditures are made from the appropriations herein provided for, the contracting gas company shall equip each lamp with a self-regulating burner and tip, so combined and adjusted as to secure, under all ordinary variations of pressure and density, a consumption of five cubic feet of gas per hour.

Electric lights: For electric lights for three hundred and sixty-five nights from seven posts, at twenty cents per light per night, on grounds south of the Executive Mansion, five hundred and eleven dollars.

For lighting thirty-two arc electric lights in Lafayette, Franklin, Judiciary, and Lincoln parks three hundred and sixty-five nights, at twenty-five cents per light per night, which shall cover the entire cost to the United States of lighting and maintaining in good order each electric light in said parks, two thousand nine hundred and twenty dollars. Until Congress shall provide for a conduit system it shall be unlawful to lay conduits or erect overhead wires for electric lighting purposes in any road, street, avenue, highway, park, or reservation, except as hereafter specifically authorized by law: *Provided, however*, That the Commissioners of the District of Columbia are hereby authorized to issue permits for house connections with conduits and overhead wires now existing adjacent to the premises with which such connection is to be made; and also permits for public lighting connections with conduits already in the portion of the street proposed to be lighted. And nothing herein contained shall be construed to affect in any way any pending litigation involving the validity or invalidity or legality of the construction of any conduits made since June eighteenth, eighteen hundred and ninety-six, nor to prevent the United States Electric Lighting Company from extending conduits into Columbia Heights, Washington Heights, and Mount Pleasant within the fire limits as specifically provided in the act of June eleventh, eighteen hundred and ninety-six, making appropriations for the expenses of the government of the District of Columbia; and the existing overhead wires of the Potomac Electric Power Company west of Rock Creek and outside the fire limits are hereby authorized to be maintained for a period of one year from the passage of this act and no longer.

Very respectfully submitted.

WALTER C. ALLEN,
Inspector of Electric Lighting.

Capt. W. M. BLACK,
Engineer Commissioner District of Columbia.
(Through Capt. Edward Burr.)

REPORT OF THE INSPECTOR OF GAS AND METERS.

GAS SUPPLY.

The illuminating power and purity of the gas supplied in the District of Columbia during the year ending June 23, 1897, has been inspected and tested in accordance with the third section of an act relating to the sale of gas in the District of Columbia, approved June 6, 1896.

The above-mentioned section provides that from and after the 30th day of June, 1896, the illuminating power of the gas in the District of Columbia shall be equal to 25 candles on the Bunsen photometer, using the Bray slit union burner, No. 7, consuming 5 cubic feet of gas per hour, and such gas shall not contain more than 20 grains of sulphur in any form in 100 cubic feet, nor more than 5 grains of ammonia in any form in 100 cubic feet, and shall be free of the impurity known as sulphureted hydrogen.

Nine hundred and eight photometric tests were made of the illuminating power of the gas furnished by the Washington Gas Light Company during the past year at the three laboratories designated by law.

ıe average illuminating power of the gas, determined at the Central Laboratory, er Tenth and D streets NW., was found to equal 25.43 candles; the highest ninating power, 28.76 candles; the lowest illuminating power, 23.02 candles.
ıe average illuminating power of the gas, determined at the Southeast Labo- ry, corner Fifth and D streets SE., was found to equal 25.97 candles; the high- luminating power, 29.78 candles; the lowest illuminating power, 23.76 candles.
ıe average illuminating power of the gas, determined at the Northwest Labo- ry, 1335 Fourteenth street NW., was found to equal 26.14 candles; the highest ninating power, 30.30 candles; the lowest illuminating power, 22.46 candles.
capitulation.—Mean average illuminating power for the year, 25.84 candles; imum average illuminating power for the year, 29.61 candles; minimum aver- illuminating power for the year, 23.08 candles.
faults.—On seven occasions during the year the illuminating power of the supplied by the Washington Gaslight Company at the three laboratories, by age, was found not to equal 25 candles.
mmonia and sulphur.—The average quantity of ammonia found in 100 cubic of gas at the Central and Southeast laboratories (no test having been made at Northwest Laboratory for ammonia and sulphur) was 0.89 grains; the highest ıtity of ammonia found in 100 cubic feet of gas was 5.38 grains; the lowest ıtity of ammonia found in 100 cubic feet of gas was 0.05 grains. On one occa- at the Central Laboratory the quantity of ammonia found slightly exceeded 5 grains allowed, namely, 0.38 grains.
ıe average quantity of sulphur found in 100 cubic feet of gas at the Central Southeast laboratories was 3.94 grains; the highest quantity of sulphur in 100 ic feet of gas was 10.62 grains; the lowest quantity of sulphur in 100 cubic feet as was 1.16 grains. No default in the sulphur standard occurred during the

dphureted hydrogen.—The presence of sulphureted hydrogen was found on 27 ısions at the Central Laboratory, on 96 occasions at the Northwest Laboratory, on 32 occasions at the Southeast Laboratory. As stated above, the greatest ıber of defaults occasioned by the presence of sulphureted hydrogen occurred he Northwest Laboratory. The season of the year when this impurity was t prevalent was during the months of October, November, December, and nary.
fter a thorough investigation of this subject, and every expedient having been rted to to overcome and dissipate this nuisance, but without fully accom- hing the object sought, the conclusion was reached that the cause of the con- ıed presence of sulphureted hydrogen was found to be owing to inadequate ıns of purification of the water gas at the time of year when the largest make as was required of the Northwest works.
he Washington Gaslight Company, appreciating this fact, are having new r-box purifiers put in their water-gas plant, Twenty-sixth and G streets. When improvement has been completed, the annoying sulphur compound (sul- reted hydrogen), it is confidently expected, will be entirely eliminated from gas supplied to consumers.
he gas supplied by the Washington Gaslight Company is a mixture of coal and er gases in varying proportions. When the gas is wholly carbureted water , or mostly so, the light furnished is white and intense, but the flame is smaller ı when the mixture contains from a third to a half of coal gas. The light er the latter conditions is not so white or intense, but the flame is larger and e diffusive, rendering the light more acceptable to consumers for the ordinary poses of illumination.
pecific gravity.[1]—The specific gravity of the gas furnished by the Washington light Company was as follows:

tral laboratory:	
Average gravity	.607
Highest gravity	.630
Lowest gravity	.574
theast laboratory:	
Average gravity	.589
Highest gravity	.630
Lowest gravity	.540
thwest laboratory:	
Average gravity	.594
Highest gravity	.601
Lowest gravity	.580

[1] Air 1,000.

Gas pressure.—The pressure of the gas furnished by the Washington Gaslight Company was as follows:

	Inches.
Central laboratory:	
Average pressure	1.57
Highest pressure	2.40
Lowest pressure	1.08
Southeast laboratory:	
Average pressure	2.12
Highest pressure	2.87
Lowest pressure	1.63
Northwest laboratory:	
Average pressure	1.71
Highest pressure	2.60
Lowest pressure	1.11

The above pressures were recorded between the hours of sunset and sunrise.

Three hundred and three photometric tests were made of the illuminating power of the gas furnished by the Georgetown Gaslight Company at the laboratory, 1338 Thirty-second street NW. The average illuminating power of the gas was found to equal 27.19 candles; the highest illuminating power, 32.05 candles; the lowest illuminating power, 22.76 candles.

Defaults.—On ten occasions the illuminating power of the gas supplied by this company was found to be less than 25 candles.

Ammonia and sulphur.—The average quantity of ammonia found during the year in 100 cubic feet of gas was 3.32 grains; the highest quantity of ammonia found was 9.86 grains; the lowest quantity of ammonia found was 0.68 grains.

Defaults.—On seven occasions the quantity of ammonia found in 100 cubic feet of gas was in excess of the 5 grains allowed. The average quantity of sulphur found during the year in 100 cubic feet of gas was 11.62 grains; the highest quantity of sulphur found was 17.65 grains; the lowest quantity of sulphur found was 7 grains. No defaults occurred in the sulphur standard.

Sulphuretted hydrogen.—On nine occasions during the month of February the gas of this company contained sulphuretted hydrogen. The presence of this impurity was caused by the company having to allow the gas to go on the town without being purified, owing to an accident to their plant. This is the only instance in many years that sulphuretted hydrogen was found in the gas supplied by the Georgetown Gaslight Company, and in this particular instance the cause was unavoidable.

The gas supplied by the Georgetown Gaslight Company is made from coal, enriched with oil. It is of fine quality, yielding by average during the past year 27.19 candles with a consumption of 5 cubic feet per hour. It would be advisable that consumers of gas in Georgetown use burners with finer openings than were formerly required, so as to guard against smoke, caused by imperfect combustion, which is due to the burners in use at the present time not being suitable for completely consuming the rich gas required to be furnished by this company by the act of June 6, 1896.

Specific gravity.[1]—The specific gravity of the gas furnished by the Georgetown Gaslight Company was as follows:

Thirty-second Street laboratory:	
Average gravity	.500
Highest gravity	.594
Lowest gravity	.450

Gas pressure.—The pressure of the gas furnished by the Georgetown Gaslight Company was as follows:

	Inches.
Thirty-second street laboratory:	
Average pressure	1.90
Highest pressure	4.05
Lowest pressure	.20

The above pressures were recorded between the hours of sunset and sunrise.

INSPECTION OF METERS.

Three thousand six hundred and thirty-six gas meters were inspected and proved by this office from June 24, 1896, to June 23, 1897. With the exception of 11 meters inspected and proved for the Alexandria gas works the above number

[1] Air, 1,000.

nspected and proved for the Washington and Georgetown gaslight compa-
nd for consumers of gas in Washington and Georgetown. The results of
tion were as follows: One hundred and thirty-five registered fast, average
4.54 per cent; 635 registered slow, average error 10.76 per cent; 2,595 regis-
within the limits allowed by law, namely, 2 per cent either way, and were
and returned to the gaslight companies for service; 260 did not register the
wing through them; 1,197 of the above-described meters were ordered out
rice and inspected and proved on complaint; 280 were inspected and proved
nplaint of consumers, they believing them to be incorrect; 109 registered
verage error 4.56 per cent; 23 registered slow, average error 5.25 per cent;
gistered within the limits allowed, namely, 2 per cent either way; 917 meters
nspected and proved on complaint of the gas companies; 24 registered fast,
e error 5.10 per cent; 612 registered slow, average error 27.55 per cent; 21
red within the limits allowed; 260 did not register the gas flowing through

Nine hundred and two of the above-described meters were tested on com-
of the Washington Gaslight Company. The reason so many were found
ring slow and not registering at all is owing to the fact that meters of this
re removed from service by this company, believing them to be inaccurate.
re then tested in the company's shop to ascertain their condition before
ng for an inspection by this office.

er the conditions named it is not likely that the inspector would often find
of this description registering fast or within the limits allowed.

FEES COLLECTED FOR METER INSPECTIONS.

sum of $1,245.30 was collected for meters inspected and proved by this office
June 24, 1896, to June 23, 1897. The same was paid to the collector of the
t of Columbia, to be placed to the credit of the United States and District of
bia in equal parts.

ain renew the recommendation made in the annual report of this office for
st three years that an additional assistant inspector be provided to assist in
spection of meters when necessary and perform other work in the labora-
under the direction of the inspector.

recommendation made for some years past that the salary of the messenger
reased from $480 to $600 per annum is again renewed. This employee has
tory work to perform which requires care and attention aside from his
r duties as messenger, and the compensation at present allowed is inade-
for the services rendered.

S. CALVERT FORD,
Inspector of Gas and Meters.

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t of the illuminating power and purity of the gas supplied by the Washington Gaslight Company from June 24, 1896, to June 23, 1897.

CENTRAL LABORATORY.

th.	Number of observations.	Illuminating power in sperm candles.			Quantity of ammonia in 100 cubic feet.			Quantity of sulphur in 100 cubic feet.			Number of occasions that sulphureted hydrogen was present during the year.
		Mean.	Highest.	Lowest.	Mean.	Highest.	Lowest.	Mean.	Highest.	Lowest.	
					Grains.	*Grains.*	*Grains.*	*Grains.*	*Grains.*	*Grains.*	
.....	25	25.07	27.26	23.24	2.36	3.68	1.47	4.30	5.35	2.24	1
.....	26	25.70	27.70	23.71	1.65	2.60	1.02	3.64	5.08	2.12	5
ber .	26	26.00	28.76	24.53	.96	1.78	.17	3.58	4.99	2.06	7
.....	26	25.40	26.50	24.21	.50	.85	.11	4.13	5.49	2.31	1
ber ..	26	25.93	28.36	24.63	.44	.79	.05	2.81	3.68	1.78	2
ber ..	25	25.27	27.13	23.38	.35	.96	.17	4.21	5.51	3.11	.....
y ...	25	25.62	27.29	24.33	.69	1.30	.17	4.37	5.90	2.81	2
ry ...	25	25.44	27.23	23.92	2.16	5.38	.45	5.68	9.09	3.41	4
.....	23	25.52	27.22	23.89	.56	1.13	.22	6.82	7.94	4.80	1
.....	27	25.32	27.70	24.17	.41	.56	.17	5.76	8.19	3.54	.....
.....	25	24.70	26.45	23.02	.62	.79	.34	7.29	10.62	5.33	.....
.....	26	25.19	27.23	24.15	.58	.90	.39	6.42	9.43	3.70	4
tal..	305	305.16	.....	.....	11.28	.....	.....	59.01	.....	.....	27

Report of the illuminating power and purity of the gas supplied by the Washing Gaslight Company, etc.—Continued.

AVERAGE FOR THE YEAR.

Illuminating power in sperm candles:
Mean 1
Highest 1
Lowest 1
Quantity of ammonia in 100 cubic feet:
Mean ..... grains..
Highest ..... do....
Lowest ..... do....
Quantity of sulphur in 100 cubic feet:
Mean ..... grains..
Highest ..... do....
Lowest ..... do....
Sulphureted hydrogen, number of times present during the year .....

On seven occasions the illuminating power of the gas supplied by this comp at the three laboratories by average was less than 25 candles.

On one occasion the quantity of ammonia found at this laboratory was slig in excess of the 5 grains allowed.

On 27 occasions sulphureted hydrogen was present at this laboratory.

Report of the illuminating power and purity of the gas supplied by the Was ton Gaslight Company from June 24, 1896, to June 23, 1897.

NORTHWEST LABORATORY.

Month.	Number of observations.	Illuminating power in sperm candles.			Num of o sic that phu ed l dro was ent ing ye
		Mean.	Highest.	Lowest.	
July	25	26.98	30.30	24.97	
August	26	26.05	28.50	22.46	.....
September	25	26.20	28.00	24.53	
October	26	26.16	28.08	24.26	
November	26	25.85	27.62	24.44	
December	25	26.01	28.89	24.20	
January	23	24.99	26.18	23.57	
February	25	25.71	26.99	23.12	
March	23	25.75	27.52	24.20	.....
April	27	26.68	28.93	24.82	.....
May	25	26.91	29.30	24.5!	.....
June	26	26.42	28.93	24.06	.....
Total	302	313.71			

AVERAGE FOR THE YEAR.

Illuminating power in sperm candles:
Mean .....
Highest .....
Lowest .....
Sulphureted hydrogen, number of times present during the year .....

On 7 occasions the illuminating power of the gas supplied by this compan the three laboratories by average was found less than 25 candles.

On 96 occasions sulphureted hydrogen was found at this laboratory during year.

ort of the illuminating power and purity of the gas supplied by the Washington Gaslight Company from June 24, 1896, to June 23, 1897.

SOUTHEAST LABORATORY.

nth.	Number of observations.	Illuminating power in sperm candles.			Quantity of ammonia in 100 cubic feet.			Quantity of sulphur in 100 cubic feet.			Number of occasions that sulphureted hydrogen was present during the year.
		Mean.	Highest.	Lowest.	Mean.	Highest.	Lowest.	Mean.	Highest.	Lowest.	
					Grains.	*Grains.*	*Grains.*	*Grains.*	*Grains.*	*Grains.*	*Grains.*
.....	25	26.81	29.78	25.23	0.69	1.36	0.17	1.82	2.61	1.37	.....
it	26	26.16	28.39	24.12	1.09	2.55	.51	1.61	2.47	1.30	.....
nber..	26	25.92	27.58	24.43	.72	1.02	.34	2.03	3.43	1.30	.....
er.....	26	25.96	27.28	24.44	1.00	1.53	.85	2.01	2.95	1.37	5
nber..	26	25.79	27.41	23.76	1.03	1.70	.17	1.88	2.74	1.37	1
ıber ..	25	25.96	27.39	24.25	.84	1.36	.51	2.32	3.43	1.23	1
ry	23	26.26	27.83	24.22	1.00	1.19	.85	2.61	3.70	1.37	14
ary ...	24	26.24	29.76	23.98	.83	1.19	.34	3.68	4.80	2.33	8
ı	22	25.52	26.66	24.40	.40	.85	.17	4.25	6.45	3.29	2
.....	27	25.92	28.91	24.08	.71	1.02	.17	3.92	6.59	2.08	.....
.....	25	25.60	27.18	24.53	1.14	1.53	.68	4.59	6.87	1.16	1
.....	26	25.57	28.27	24.32	.75	1.19	.34	5.08	6.87	1.51	.....
Total..	301	311.73	.....	.....	10.20	.....	.....	35.80	.....	.....	32

AVERAGE FOR THE YEAR.

inating power in sperm candles:		
ean		25.97
ighest		29.78
owest		23.76
tity of ammonia in 100 cubic feet:		
ean	grains..	.85
ighest	do....	2.55
owest	do....	.17
tity of sulphur in 100 cubic feet:		
ean	grains..	2.98
ighest	do....	6.87
owest	do....	1.16
ureted hydrogen, number of times present during the year		32

ı 7 occasions the illuminating power of the gas supplied by this company at hree laboratories by average was found less than 25 candles.

ı 32 occasions sulphureted hydrogen was found during the year at this ratory.

Report of the illuminating power and purity of the gas supplied by the Georgetown Gas Light Company from June 24, 1896, to June 23, 1897.

LABORATORY 1338 THIRTY-SECOND STREET NW.

Month.	Number of observations.	Illuminating power in sperm candles.			Quantity of ammonia in 100 cubic feet.			Quantity of sulphur in 100 cubic feet.			Number of occasions that sulphureted hydrogen was present during the year.
		Mean.	Highest.	Lowest.	Mean.	Highest.	Lowest.	Mean.	Highest.	Lowest.	
		Grains.	*Grains.*	*Grains.*	*Grains.*	*Grains.*	*Grains.*	*Grains.*	*Grains.*	*Grains.*	
July	25	27.41	31.13	25.07	3.33	4.02	2.57	10.68	14.65	8.87	..
August	26	27.39	30.05	25.15	4.05	6.04	1.88	11.91	14.92	9.31	.....
September	26	27.64	31.73	24.99	3.55	4.25	2.72	12.47	14.16	8.51	.....
October	26	27.46	29.24	25.08	2.40	3.23	1.70	10.15	11.40	8.88	.....
November	26	27.04	31.19	25.03	4.58	9.86	2.55	13.32	17.31	10.64	.....
December	25	26.64	31.54	23.06	1.89	4.25	.68	11.69	14.01	9.89	.....
January	23	27.93	31.82	22.76	4.04	7.99	1.87	12.62	17.65	11.12	.....
February	25	26.59	29.44	23.45	2.93	3.57	2.21	13.25	17.37	9.48	9
March	23	26.92	30.14	23.84	2.98	6.12	2.21	9.59	11.12	7	.....
April	27	27.28	32.05	25.23	3.67	4.25	2.89	9.77	12.15	8.10	.....
May	25	26.93	30.62	23.53	3.17	4.08	2.38	11.67	15.98	7.35	.....
June	26	27.08	30.87	25.07	3.30	4.45	2.43	12.42	13.52	10.56	.....
Total	303	326.31	.....	.....	39.89	.....	.....	139.54	.....	.....	.....

AVERAGE FOR THE YEAR.

Illuminating power in sperm candles:		
Mean		27.19
Highest		32.05
Lowest		22.76
Quantity of ammonia in 100 cubic feet:		
Mean	grains	3.32
Highest	do	9.86
Lowest	do	.68
Quantity of sulphur in 100 cubic feet:		
Mean	do	11.62
Highest	do	17.65
Lowest	do	7.00
Sulphureted hydrogen, number of times present during the year		9

On 10 occasions the illuminating power of the gas supplied by this company was less than 25 candles.

On 7 occasions the quantity of ammonia found exceeded the 5 grains allowed.

On 9 occasions during the month of February sulphureted hydrogen was present.

Report showing the pressure of the gas supplied by the Washington Gas Light Company, as registered in this office, central laboratory, corner Tenth and D streets, from July 1, 1896, to June 30, 1897.

Month.	Mean.	Maximum.	Minimum.
	Inches.	*Inches.*	*Inches.*
July	1.47	1.82	1.21
August	1.52	1.95	1.[illegible]
September	1.62	1.92	1.[illegible]
October	1.62	1.92	1.[illegible]
November	1.59	1.90	1.[illegible]
December	1.63	2.02	1.[illegible]
January	1.60	1.99	1.[illegible]
February	1.59	1.95	1.[illegible]
March	1.64	2.40	1.[illegible]
April	1.54	1.93	1.[illegible]
May	1.53	1.91	1.[illegible]
June	1.56	1.93	1.24
Total	18.91	.....	.....

Average mean pressure	inches	1.57
ximum pressure (March 3, 1897)	do	2.40
imum pressure (August 8, 1896)	do	1.08

showing the pressure of the gas supplied by the Washington Gas Light xany, as registered in this office, southeast laboratory, corner Fifth and D s, from July 1, 1896, to June 30, 1897.

Month.	Mean.	Maximum.	Minimum.
	Inches.	*Inches.*	*Inches.*
	1.99	2.46	1.65
	1.96	2.33	1.65
er	2.07	2.55	1.62
	2.22	2.58	1.78
er	2.22	2.87	1.81
r	2.26	2.91	1.75
	2.21	2.77	1.73
r	2.22	2.69	1.70
	2.22	2.79	1.62
	2.14	2.80	1.63
	2.04	2.66	1.66
	1.93	2.30	1.64
al	25.48		

mean pressure ..... inches .. 2 12
n pressure (November 30, 1896) ..... do 2.87
n pressure (September 13, 1896, March 24, 1897) ..... do 1.62

showing the pressure of the gas supplied by the Washington Gaslight Com- as registered in this office, northwest laboratory, 1335 Fourteenth street, July 1, 1896, to June 30, 1897.

Month.	Mean.	Maximum.	Minimum.
	Inches.	*Inches.*	*Inches.*
	1.74	2.12	1.40
	1.70	2.02	1.35
er	1.63	1.95	1.11
	1.60	1.92	1.30
er	1.60	1.95	1.27
r	1.69	2.21	1.31
	1.70	2.18	1.30
r	1.75	2.35	1.39
	1.80	2.60	1.43
	1.78	2.15	1.46
	1.78	2.20	1.35
	1.78	2.17	1.47
al	20.55		

mean pressure ..... inches .. 1.71
m pressure (March 4, 1897) ..... do 2.60
n pressure (September 28, 1896) ..... do 1.11

Report showing the pressure of the gas supplied by the Georgetown Gas Company, as registered in this office, 1338 Thirty-second street laboratory, f July 1, 1896, to June 30, 1897.

Month.	Mean.	Maximum.	Minin
	Inches.	*Inches.*	*Inch*
July	1.88	3.00	
August	1.79	2.90	
September	1.83	2.92	
October	1.71	2.18	
November	1.75	2.31	
December	1.88	2.57	
January	1.94	3.81	
February	1.96	2.55	
March	2.03	2.62	
April	1.95	2.62	
May	1.98	4.05	
June	2.11	3.67	
Total	22.81		

Average mean pressure ..... inches.
Maximum pressure (May 18, 1897) ..... do...
Minimum pressure (February 26, 1897) ..... do...

Report of meters inspected and proved for the Georgetown Gaslight Com and for consumers of gas in Georgetown, from June 24, 1896, to June 23, 18

Month.	Meters tested.	New meters for company.		Repaired meters for company.		Consumers' meters on complaint of consumers.						Consumers' meters on complaint of company.				
		Total.	Correct.	Total.	Correct.	Total.	Fast.		Slow.		Correct.	Total.	Fast.		Correct.	
							No.	P. ct.	No.	P. ct.			No.	P. ct.		
July	20	1	1	14	14	5	1	5.33			4					
August																
September	1											1	1	3.83		
October	28	24	24			3	2	3.24			1	1				1
November	4											4	4	4.47		
December	3					3	1	3.66			2					
January	18			13	13	4	3	5.38			1	1	1	7.66		
February	28	18	18			10	4	5.99	1	5	5					
March	15			10	10	5	4	4.95			1					
April	20	12	12			2	1	4			1	6	2	5	3	
May	2											2	1	3.50	1	
June	20			17	17	3	1	3.33			2					
	159	55	55	54	54	35	17	a4.48	1	5	17	15	9	*4.89	5	

a Average.

One hundred and fifty-nine meters were inspected and proved during the ending June 23, 1897, for the Georgetown Gaslight Company and for consu of gas in Georgetown. Of this number 26 registered fast, average error 4.6 cent; 1 registered slow, 5 per cent; 131 registered within the limits allowed law, namely 2 per cent either way, and 1 did not register, the gas flowing throug

Report of meters inspected and proved for the Washington Gaslight Company and for consumers of gas in Washington from June 24, 1896, to June 23, 1897.

Month.	Whole number of meters tested.	New meters for company.		Repaired meters for company.				Consumers' meters on complaint of consumers.					Correct.
		Total.	Correct.	Total.	Fast.		Correct.	Total.	Fast.		Slow.		
					No.	P. ct.			No.	P. ct.	No.	P. ct.	
July	286	2	2	188	....	.....	188	18	5	3.86	5	6.46	8
August	252	.....	.....	156	....	.....	156	4	....	.....	1	2.83	3
September	257	.....	.....	172	....	.....	172	6	2	6.24	....	.....	4
October	349	100	100	176	....	.....	176	22	5	3.59	3	3.86	14
November	240	.....	.....	171	....	.....	171	27	9	4.29	4	3.16	14
December	293	6	6	177	....	.....	177	29	9	4.94	4	3.22	16
January	387	100	100	136	....	.....	136	31	18	5.09	1	3	12
February	455	206	206	135	....	.....	135	26	10	4.49	1	3.66	15
March	260	50	50	111	....	.....	111	18	7	5.16	1	3.33	10
April	272	.....	.....	162	....	.....	162	37	17	4.87	1	4.16	19
May	216	.....	.....	147	1	3.16	146	9	4	4.41	....	.....	5
June	199	.....	.....	124	1	3.50	123	18	6	4.10	1	21.50	11
Total	3,466	464	464	1,855	2	*a* 3.33	1,853	245	92	*a* 4.64	22	*a* 5.51	131

Month.	Consumers' meters on complaint of company.						Consumers' meters on complaint of company that did not register.
	Total.	Fast.		Slow.		Correct.	
		No.	P. ct.	No.	P ct.		
July	78	1	4.33	50	26.25	1	26
August	92	.....	.....	69	27.20	1	22
September	79	.....	.....	55	28.70	2	22
October	51	.....	.....	35	27.97	1	15
November	42	1	4.66	21	31.74	3	17
December	81	4	4.20	48	30.56	2	27
January	120	1	3.50	84	21.99	.....	35
February	88	2	6.89	56	27.89	.....	30
March	81	5	7.83	55	27.48	.....	21
April	73	.....	.....	49	24.57	.....	24
May	60	1	5.83	43	26.52	4	12
June	57	.....	.....	47	29.80	2	8
Total	902	15	*a* 5.32	612	*a* 27.55	16	259

a Average.

During the year ending June 23, 1897, 3,466 meters were inspected and proved for the Washington Gaslight Company and for consumers of gas in Washington. Of this number, 109 registered fast, average error 4.40 per cent; 634 registered slow, average error 16.53 per cent; 2,464 registered within the limits allowed by law—namely, 2 per cent either way; and 259 did not register the gas flowing through them.

Eleven meters were inspected for the Alexandria Gas Works.

REPORT OF THE INSPECTOR OF BUILDINGS.

OFFICE OF THE INSPECTOR OF BUILDINGS,
Washington, D. C., August 26, 1897.

SIR: I have the honor to submit herewith the annual report covering the transactions of the building department for the fiscal year ending June 30, 1897, together with estimates and recommendations for the fiscal year ending June 30, 1899.

Statement of permits issued from June 30, 1896, to July 1, 1897.

Description.	Number.	Value.
Brick dwellings	616	$2,248,310.00
Frame dwellings	116	161,310.00
Brick repairs and alterations	526	620,247.00
Frame repairs and alterations	395	59,817.00
Stores (brick)	19	184,250.00
Stores (frame)	4	1,450.00
Stables (brick)	22	15,900.00
Stables (frame)	12	3,785.00
Warehouses (brick)	5	18,200.00
Churches	6	122,000.00
Office buildings	4	96,500.00
Workshops, etc	5	7,800.00
Flats and apartment houses	6	242,000.00
Schools and colleges (private)	2	205,000.00
Greenhouse	1	525.00
Grand stand	1	2,400.00
Market	1	10,000.00
Gymnasium	1	5,500.00
Sheds	277	14,028.00
Total buildings, repairs, etc	2,019	4,019,022.00
Vaults or underground construction	12	6,450.75
Minor repairs	1,499	12,491.00
Reviewing stands (not including stands on reservations)	71	17,750.00
Awnings (post frames)	103	8,755.00
Boilers, elevators, and fire escapes	148	38,130.00
Total for all structures	3,852	4,102,598.75

Special applications for projections beyond the building line—

Approved	354
Disapproved	1

Comparative statement of building operations for the years 1896 and 1897.

New buildings:		Dwellings:	
1896	1,337	1896	1,006
1897	1,098	1897	732
Decrease	239	Decrease	274

Valuation of building operations:	
1896	$4,793,991.99
1897	4,102,598.75
Decrease	691,393.24

Number of permits issued:	
1896	1,964
1897	1,622
Decrease	342

The following summary will show the distribution of improvements in the different sections of the District and the value of same:

County buildings	$1,477,935	Northwest repairs	$518,818
Northwest buildings	1,108,015	County repairs	53,819
Northeast buildings	357,600	Southwest repairs	50,232
Southeast buildings	819,280	Northeast repairs	36,656
Southwest buildings	62,100	Southeast repairs	34,567
Total	3,824,930	Total	694,092

f the office for the year:

; permits	$2,874.00
r underground construction	1,657.92
or building purposes	936.85
	103.00
engines, and ovens	9.00
	5,580.77
; year 1896	6,871.08
' year 1897	5,580.77
ase	1,290.31

n to the permits above enumerated, miscellaneous permits were issued, o fees were obtained, consisting of renewals of parking railings, lay- its within parking spaces, rebuilding entrance porches and steps, tem- tures for the use of builders in connection with new construction, ancy of public space for building materials, and excavations for

of assistant inspectors have been faithful and painstaking in the dis- ie duties assigned them, and I append a statement of the execution of neous character of their assignments:

the undersigned assistant inspectors, respectfully submit the follow- at of the amount and character of the work done in connection with ; operations of the District during the fiscal year ending June30, 1897:

inspections of new buildings in city and county	2,806
inspections of old frame buildings and sheds examined for repair	413
inspections of old buildings reported as dangerous	211
inspections of old brick buildings examined for repair	272
inspections and notices sent to make good defective construc-	194
inspections and notices for condemnation of party walls	19
inspections and notices sent for condemnation of brick buildings	59
inspections and notices sent for condemnation of frame build-	129
inspections and notices sent for condemnation of defective	30
; for removal of obstructions from alleys, streets, and parkings	75
; to vacate dangerous buildings	27
rs given to old buildings	115
' the building regulations	38
; to connect down spouts with sewers	48
a to repair gutters and down spouts to protect adjoining prop-	27
ns of requests to remove houses, fences, sheds, and horses from , etc	138
us inspections not enumerated above	278
	4,874

examination of the foregoing statement will show the greatly varied ' the duties we are called on to perform, the amount of clerical work the number of notices sent, written reports of examinations, notices mber houses, and in addition to this the keeping of the record and field n in number. The time occupied on this work, with the time taken xamination of trivial complaints requiring immediate attention, the about party fences, dilapidated sheds, the examination of old build- air, making repairs without permits, the conversion of fuel sheds to irs to gutters and down spouts, leaves but little time for the proper a of the new buildings being erected throughout the District, and the ncreasing extent of territory to be covered (by three men) caused by of new buildings beyond the city limits, shows, we think, the abso- ty for an increase of force, both of office and field work, in order that able to devote more time and give a more careful inspection to the and construction of the new buildings being erected in the 60.23 square ritory coming under our supervision.

In addition to the foregoing, constant examinations of stands for inaugu and other purposes were made during the two weeks prior to the 4th of last Mar Each of the assistant building inspectors devoted his entire time, regardless to t weather, to a careful inspection of those temporary structures. As a result this care, it affords pleasure to add that no accident of any kind resulted to t many thousands of people assembled on that important occasion.

Thanking you very kindly for your uniform kindness and support on all oc sions, we have the honor to remain, very respectfully yours,

C. W. SOMMERVILLE,
RICHARD M. EVANS,
JAMES L. PARKINSON,
Assistant Inspectors of Buildings

The increase in the physical equipment of this department, suggested above a reiteration of the argument I used in my last annual report. The volum work of a miscellaneous character increases each year, and to dispose of promptly will require an additional force.

I recommend that four more assistant inspectors be provided, each at a sal of $1,200 per annum, and that the salaries of the present inspectors be increased $1,200 per annum; also, that an additional clerk at $1,200 per annum be provid

If this increase be granted, the administration of this office will be m effectual. and the community will appreciate the prompt service this departm would render with such a changed condition.

DISTRICT BUILDINGS.

The plans and specifications were prepared in this office for the several mun ipal buildings provided for in the appropriation bill, and in the erection of wh the expenditures made are shown by the following detailed accounts:

CONGRESS HEIGHTS, GIESBORO.

Original appropriation, 1896		$9,000.
Drafting and drawing materials	$158.20	
Specifications	28.06	
Contingent expenses	25.00	
Contract	7,800.00	
Work outside of contract	740.98	
Blackboarding	28.00	
		8,780.
Balance		219.

SCHOOL BUILDING, LANGDON.

Appropriation		$8,000.
Drafting and drawing materials for brick and frame building	$153.00	
Specifications (for brick and frame building)	25.73	
Contract	6,542.00	
Superintendence	390.00	
Extra work	223.50	
Blackboarding and outhouses	464.13	
Grading	165.75	
		7,964.
Balance		35.

CONDUIT ROAD SCHOOL.

Appropriation		$8,000.
Site	$2,000.00	
Drafting	54.00	
Specifications	10.03	
Car tickets for superintendent	5.00	
Blackboarding	31.50	
Contract, $5,843; less $12 for cement furnished	5,831.00	
Cost of cement furnished by the District	10.65	
		7,942.
Balance		57.

CENTRAL HEATING STATION.

ion		$4,000.00
	$64.00	
ons	11.21	
		75.21
nce		3,924.79

for this building exceeded the appropriation, and an additional appro- $4,500 was made for 1898, and the work is now in progress.

GARFIELD HOSPITAL.

tion		$7,500.00
ons	$14.94	
	35.06	
	7,450.00	
		7,500.00

rs to school buildings and improvements to grounds, 1896 and 1897.

tion		$32,000.00
appropriation		4,543.24
l		36,543.24
ion	$705.64	
ision	2,658.62	
sion	3,445.47	
ision	520.11	
ion	1,499.61	
ion	1,590.36	
vision	485.39	
ision	2,198.95	
gh	327.57	
and materials delivered at shop	18,849.08	
		32,280.80
nce		4,262.44

DELING THE WALLACH SCHOOL AND BUILDING ADDITION TO SAME.

ct was made for this work for the sum of $19,779. After the old portion ding had been remodeled and occupied for school purposes, and the new ad reached the first floor of joists, the contractor abandoned the work. men took possession of the building and carried it as far as roofing in the when they too abandoned the work. The Commissioners then ordered tor of buildings to complete the building.

i appropriated for this work was found to be inadequate to complete the and a further sum of $2,000 was secured.

enditures were as follows:

tion	$22,000.00
plans	187.73
idence	500.00
ntractor Winfree $11,484.82, less $279.78 retained to pay for furnished by District of Columbia	11,205.04
sher and Kengla, bondsmen, including cost of one month's endence	3,604.00
spector of buildings to continue work as follows:	
oofing	329.00
nized-iron work	40.00
ring	346.00
stair walls, and arches	690.85
olithic pavement in basement	180.00
paving in basement	160.00
er	399.16

Report of the illuminating power and purity of the gas supplied by the Georgetown Gas Light Company from June 24, 1896, to June 23, 1897.

LABORATORY 1338 THIRTY-SECOND STREET NW.

Month.	Number of observations.	Illuminating power in sperm candles.			Quantity of ammonia in 100 cubic feet.			Quantity of sulphur in 100 cubic feet.			Number of occasions that sulphureted hydrogen was present during the year.
		Mean.	Highest.	Lowest.	Mean.	Highest.	Lowest.	Mean.	Highest.	Lowest.	
					Grains.	*Grains.*	*Grains.*	*Grains.*	*Grains.*	*Grains.*	
July	25	27.41	31.13	25.07	3.33	4.02	2.57	10.68	14.65	8.87	..
August	26	27.39	30.05	25.15	4.05	6.04	1.88	11.91	14.92	9.31	.....
September	26	27.64	31.73	24.99	3.55	4.25	2.72	12.47	14.16	8.51	.....
October	26	27.46	29.24	25.08	2.40	3.23	1.70	10.15	11.40	8.88	.....
November	26	27.04	31.19	25.06	4.58	9.86	2.55	13.32	17.31	10.64	.....
December	25	26.64	31.54	23.06	1.89	4.25	.68	11.69	14.01	9.89	.....
January	23	27.93	31.82	22.76	4.04	7.99	1.87	12.62	17.65	11.12	.....
February	25	26.59	29.44	23.45	2.93	3.57	2.21	13.25	17.37	9.48	9
March	23	26.92	30.14	23.84	2.98	6.12	2.21	9.59	11.12	7	.....
April	27	27.28	32.05	25.23	3.67	4.25	2.89	9.77	12.15	8.10	.....
May	25	26.93	30.62	23.53	3.17	4.08	2.38	11.67	15.98	7.35	.....
June	26	27.06	30.87	25.07	3.30	4.45	2.43	12.42	13.52	10.56	.....
Total	303	326.31	.....	.....	39.89	.....	.....	139.54	.....	.....	.....

AVERAGE FOR THE YEAR.

Illuminating power in sperm candles:
- Mean 32
- Highest 32
- Lowest 22

Quantity of ammonia in 100 cubic feet:
- Mean ..... grains.. 3
- Highest ..... do.... 9
- Lowest ..... do....

Quantity of sulphur in 100 cubic feet:
- Mean ..... do.... 11.
- Highest ..... do.... 17.
- Lowest ..... do.... 7.

Sulphureted hydrogen, number of times present during the year 9

On 10 occasions the illuminating power of the gas supplied by this company was less than 25 candles.

On 7 occasions the quantity of ammonia found exceeded the 5 grains allowed.

On 9 occasions during the month of February sulphureted hydrogen was present.

Report showing the pressure of the gas supplied by the Washington Gas Light Company, as registered in this office, central laboratory, corner Tenth and D streets, from July 1, 1896, to June 30, 1897.

Month.	Mean.	Maximum.	Minimum.
	Inches.	*Inches.*	*Inches.*
July	1.47	1.82	1.21
August	1.52	1.95	1.08
September	1.62	1.92	1.35
October	1.62	1.92	1.39
November	1.59	1.90	1.29
December	1.63	2.02	1.24
January	1.60	1.99	1.20
February	1.59	1.95	1.28
March	1.64	2.40	1.25
April	1.54	1.93	1.25
May	1.53	1.91	1.20
June	1.56	1.93	1.24
Total	18.91	.....	.....

Average mean pressure ..... inches.. 1.57
Maximum pressure (March 3, 1897) ..... do.... 2.40
Minimum pressure (August 8, 1896) ..... do.... 1.08

The expenditures made for the appropriation of $6,000, were as follows:

Appropriation		$6,000.00
Pay rolls	$939.54	
Slates and beams	57.00	
Lumber	409.47	
Plumbing	86.98	
Painting, glazing, and blackboarding	162.00	
Plastering	350.75	
Superintendence	172.00	
Radiators	546.62	
Brick	10.50	
Millwork	580.00	
Hardware	58.24	
Fire-clay	1.50	
Tar paper	8.62	
Plating	9.00	
Belt and weights	31.28	
Lime and cement	5.70	
Sand	3.15	
Glass	6.10	
Cleaning windows, soap, etc	.50	
		3,438.95
Balance		2,561.05

Legislation has been obtained to use the unexpended balances to satisfy as far as possible the claims filed with the auditor of the District of Columbia for material and labor furnished to the contractor on this building.

REPAIRS TO STATION HOUSES, 1896, 1897.

Appropriation		$2,000.00
Deficiency appropriation		21.80
		2,021.80
No. 1	$108.96	
No. 2	148.44	
No. 3	284.52	
No. 4	134.30	
No. 5	82.56	
No. 6	415.11	
No. 7	112.08	
No. 8	79.37	
No. 9	63.11	
Substation, Anacostia	25.85	
Detective department	14.00	
Pay rolls	511.86	
Material delivered at shop	17.61	
		1,997.77
Balance		24.03

SPECIAL REPAIRS TO MARKET HOUSES, 1896, 1897.

Appropriation		$1,500.00
Deficiency appropriation		199.00
		1,699.00
Western	$546.45	
Eastern	629.25	
Eastern and Western	105.00	
		1,280.70
Balance		418.30

REPAIRS TO ENGINE HOUSES, 1896, 1897.

Appropriation		$3,500.00
Deficiency appropriation		219.96
		3,719.96
No. 1	$314.91	
No. 2	21.43	
No. 4	21.62	
No. 5	452.46	
No. 6	241.94	
No. 7	250.78	
No. 8	114.37	
No. 9	46.40	
No. 10	101.07	
No. 11	169.58	
Truck A	85.37	
Truck B	3.31	
Truck C	152.18	
Truck D	148.51	
Pay rolls	1,326.72	
Material delivered at shop	50.82	
		3,501.47
Balance		218.49

REPAIRS TO MARKET HOUSES, CONTINGENT EXPENSES.

Appropriation		$600.00
Eastern and Western	$54.30	
Georgetown, Western, and Eastern	51.00	
Georgetown and Western	11.24	
Georgetown	255.53	
Western	111.81	
Eastern	18.74	
		502.62
Balance		97.38

Balance of appropriation, $4,921.81, transferred from truck house D to complete new No. 2 engine house and remodel old No. 2 engine house, was expended as follows:

NEW NO. 2.

Electrical work	$404.50
Plans	20.00
Pay rolls for labor	376.50
Driveway	318.56
Plastering	151.00
Plumbing	114.50
Mill work	129.00
Lumber	110.81
Hardware	8.29
Galvanized iron	10.00
Material for floor in tower	44.54
Sliding poles	74.00
Gas fixtures	52.86
Cleaning up	6.00
Total	1,820.56

REMODELING OLD NO. 2.

Plans	$12.00
Pay rolls for labor	1,190.98
Lumber	329.44
Ironwork	42.80
Concrete	54.00
Plumbing	305.64
Electrical work	165.00
Plastering	38.00
Millwork	8.01

REMODELING OLD NO. 2—continued.

ilings			$135.00
re			8.54
ashing and cleaning			7.21
for stack			16.70
nd oils			40.00
ures			29.90
otal			2,383.22

LOT, AND FURNITURE, VICINITY OF BRIGHTWOOD, TO ACCOMMODATE CHEMITAL ENGINE COMPANY NO. 2.

iation			$15,900.00
		$2,023.34	
t		8,995.00	
an		126.00	
		33.00	
itions		14.79	
endence		404.00	
material		10.66	
ork		407.50	
and labor covering stalls		19.87	
y		889.42	
cal and electrical appliances		404.50	
ures		36.25	
pole		41.95	
track		1.35	
ing sewer		48.00	
			13,455.68
alance			2,444.37

NO. 12 ENGINE HOUSE, 1896, 1897.

iation			$23,000.00
ite		$5,000.00	
contract	$10,693.00		
tendence charged to contract	204.00		
ls cement charged to contract	52.00		
		10,949.00	
		45.00	
an		162.00	
material		19.36	
itions		17.39	
tendence		464.00	
ork		116.00	
around parking line and sodding		135.15	
ice		57.00	
ngs		48.48	
pole		42.50	
g stalls, material and labor		29.70	
ps in rear		20.00	
ashing fence		2.00	
driveway		447.34	
al appliances		404.50	
pring		18.00	
ng gas pipe		11.70	
ing sewer, etc		47.25	
l, shelving		11.00	
for area steps		4.35	
thic pavement leading to vaults		21.00	
ing doors, entrance, and painting, etc		65.00	
		18,137.72	
ofits on cement furnished by District		5.85	
			18,131.87
alance			4,868.13

REPAIRS TO POLICE COURT BUILDING, 1897.

Appropriation		$700.00
Cleaning sewer	$4.50	
Repairing heating apparatus	22.97	
Pay roll	53.62	
Painting	112.50	
Material	60.19	
Plumbing	112.55	
Chimney cap	19.50	
Repairing fire rake	.75	
New lock and keys	5.00	
Fixing flag pole	1.50	
Building sewer and manhole	9.00	
Lowering gax fixtures	1.50	
Putting in new cast-iron sewer	268.70	
		672.28
Balance		27.72

To complete and equip the smallpox hospital with boiler house, heating apparatus, etc.:

Appropriation		$6,000.00
Contract for steam heating	$2,783.00	
Preparing plans	20.00	
Range fixtures	250.00	
Sinking boiler pit and building retaining wall	80.00	
Building, material and labor, smokestack	114.79	
Sewer	140.00	
Gas fixtures	56.00	
Easing doors	18.00	
Specifications	8.97	
	3,470.76	
Less on contract for cesspool omitted	6.00	
		3,464.76
Balance		2,535.24

In my former reports I have recommended that the Potomac School building should be replaced by a modern eight-room building, because it is old, unsightly, has no conveniences, is not properly heated and ventilated, and is unfit for the purpose to which it is devoted.

The condition of the Hillsdale and Lovejoy School buildings are parallel to the Potomac, and appropriations should be secured to replace them with modern eight-room buildings.

At the request of the board of school trustees, and concurred in by the inspector of buildings, the control of the repairs to school buildings was transferred to the chairman of the committee on buildings and grounds (Mr. George H. Harries) by the honorable Commissioners. I have no recommendation to make other than to suggest that a sum not less than $5,000 should be obtained to neutralize the annual wear and tear upon 116 buildings.

ENGINE HOUSES.

The engine and truck houses number 17, and to keep them in a habitable condition, to neutralize wear and tear, which necessarily, by reason of the nature of their occupancy, is excessive, the sum heretofore appropriated, namely, $3,500, has been found by experience inadequate, and I recommend that it be increased to $5,000.

I have been compelled by lack of funds to eliminate decay in structural features in many buildings, and procrastination means additional cost in neutralizing wear and tear, therefore it would be economy to allow the necessary appropriations asked for.

STATION HOUSES.

The District now owns 9 station houses, and attached to each are stables, yet the appropriations for annual repair has been only $2,000, a sum inadequate to

keep them in a proper condition. Many of them need painting, both on the exterior and interior, the sanitary condition of some should be improved, and to neutralize the wear and tear I recommend that the sum of $5,000 be asked for.

BUILDING DEPARTMENT.

Estimates.—The following are the estimates for the year ending June 30, 1899, or the expenses of this office, the care of the District office building, and repairs to various buildings under the supervision of this office:

Salary of—	
Inspector of buildings	$2,400
Chief clerk and architect	1,600
Eight assistant inspectors of buildings (four additional, at $1,200)	9,600
One clerk	900
One clerk, additional	1,200
Messenger	480
Contingent expenses, books, blanks, stationery, livery, and repairs to carriage	675
Total	16,855

CARE OF DISTRICT OFFICE BUILDINGS.

One engineer	$900
One fireman	480
One janitor	700
Two elevator operators ($360 each)	720
Six laborers, $1.50 per day (1,878 days)	2,817
Total	5,617

REPAIRS TO BUILDINGS.

Public-school buildings and grounds	$50,000
Police stations	5,000
Fire-engine houses	5,000
Market houses	
Police court	800
Interior District office building	1,000
Total	

The current appropriations for the several buildings are not in any respect sufficient to comply with the demands that are made to place them in proper condition. Each year the number of buildings are increased, but the amount estimated for their proper care has not been allowed. The wear and tear that our buildings are subjected to is such as to demand prompt attention to neutralize, and when repairs are delayed for want of money the cost becomes greater. Therefore I hope that estimates submitted will receive your indorsement for favorable consideration.

In the above estimates your attention is called to the fact, that I have incorporated the expenses of the additional force, namely four assistant inspectors and one clerk, heretofore alluded to, as necessary for the proper administration of this department.

STEVENS AND WALLACH SCHOOLS.

During the present year the building department has been subjected to much friction and trouble, in the construction of the two school buildings named above, by reason of the inability of the contractors to prosecute the work, in the manner prescribed in the contracts, by reasons of claims filed against them by material men, subcontractors, and mechanics; that the Commissioners were forced to the necessity of suspending them, and directing the inspector of buildings to complete the work.

To avoid the repetition of such actions in the future, I recommend:

First. That the form of bond be so amended as to impose upon the bondsmen the responsibility of all obligations assumed by the contractor to every person connected with the building, namely, material men, mechanics, and laborers.

Second. As my experience has given me the knowledge that labor and material has been rendered to the District, in the erection of some of the municipal buildings, for which the laborer or mechanic or material men have not been compen-

sated, I recommend that Congress be asked for legislation to authorize the erection of the District buildings by day labor or by contract, at the discretion of the Commissioners.

While buildings under this system would cost more money, yet their construction would be of such a character as to create in every citizen confidence in their security and integrity.

REPORT OF THE INSPECTOR OF ELEVATORS.

SIR: I have the honor to submit the following as a list of the inspections made by me during the fiscal year ending June 30, 1897:

Elevator inspections	620
Elevators inspected and condemned	69
Premises examined to locate steam boilers	35
Premises examined to locate bake ovens	5
Premises examined to locate gas engine	1
Inspections for the United States	11
Miscellaneous inspections	970
Inspections of heating apparatus	120
Premises examined for fire escapes	32
Fire escapes examined during construction and condemned	6
Total	1,869

I call your attention to the necessity for an amendment to the elevator regulations, to read as follows:

To provide safety guards upon passenger elevators, and a penalty for violation thereof. That all elevators that are now in use or that may hereafter be constructed in the District of Columbia for the carriage of passengers are required to have placed thereon or attached thereto such automatic-locking device, electrical or mechanical, as will hold immovable and secure the carriage used in such elevator while any gate, door or doors at the landings that is used for entrance thereto or exit therefrom is or are open and unsecured, the said automatic device, electrical or mechanical, to place the power of controlling the elevator beyond the control of the attendant while any gate, door or doors on the landing leading to the carriage is open or unsecured.

Any person or persons, firm or corporation, who may own any building where passenger elevators are used shall be required within six months from the adoption of the amendment to have said automatic-locking device, electrical or mechanical, placed thereon or attached thereto, and in perfect operation, or be subject to a penalty or fine as prescribed in section 2 of act of Congress approved March 3, 1887.

Very respectfully,

E. F. VERMILLION,
Assistant Inspector of Elevators.

In conclusion, I beg to extend to you the acknowledgments of my obligations for the uniform kindness and courtesy which you have always manifested toward the building department.

Very respectfully,

JOHN B. BRADY,
Inspector of Buildings.

W. M. BLACK,
Captain, Corps of Engineers, U. S. A.,
Engineer Commissioner District of Columbia.

REPORT OF THE SURVEYOR OF THE DISTRICT OF COLUMBIA.

WASHINGTON, *July 27, 1897.*

GENTLEMEN: Pursuant to instructions, I have the honor to transmit herewith a statement of the operations of this office during the year ending June 30, 1897.

The following services were performed for private parties during that period, viz, 577 surveys were made, which involved the making of 577 certificates of surveys furnished the parties ordering them as well as recording the certificates in books prepared for that purpose, which, together with the plats prepared of the

erty ordered to be surveyed, aggregate 1,731 plats. One hundred and forty-subdivisions were recorded, 128 of which were for private parties, the remain-13 subdivisions were recorded in conformity with order of honorable Com-ioners, dated October 7, 1896. The recording as well as the two preliminary for action of the Commissioners involved the making of 423 plats.

lly one-third of the time of the personnel of the office is occupied in answering tions and giving information to the public concerning the original divisions subdivisions of property, as well as information generally relating to property ests in the District of Columbia.

e following services were rendered per order Commissioners of the District of mbia:

veys.—Square 1061, lots 19 and parts 18 and 20, schoolhouse site; square 624, of lots 13, 14, and 15 and all of lots 53, 54, and 84, Government Printing Office; nan avenue, east and west lines, from Grant avenue to Irving street; outlines rk, subdivision, "Ingleside;" site of Western High School and topographical of principal plantations; Pierce street, Anacostia, from Jefferson street to wold's subdivision; block 11, lot 1, Bloomingdale; alley in square 387, and ed obstructions; alley in square 894, and located obstructions; block 1, parts s 31, 32, 33, and 34, White Haven; square 830, lots 17, 22, and parts of lots 16 23, schoolhouse site; alley in square 371, and located obstructions; alleys in re 690; Peter's Mill Seat, part of lot 15, engine house site; block 6, part of lot ension of Sixteenth street; alleys in squares 457 and 894, and located obstruc-; square 878, south front, frontages of 24 houses, use board of assessors Dis-of Columbia; Harrison street, Anacostia, from Minnesota avenue to Monroe t; property lines on Thirty-seventh street extended; Corcoran, Olivet, and ol avenues, Ivy City; alleys, squares 16 and 28, and located houses erected in, use health officer District of Columbia; reservation No. 9, and located ion building, Secretary of the Interior; alley in square 1232, and located uctions; alley 30 feet wide, square 515; Western High School grounds, use ctor of buildings District of Columbia; appropriation No. 13, north 600 feet, st of Attorney-General United States; Mount Pleasant, land owned by National iation for Destitute Colored Women and Children; alleys in squares 953-5 61, and located obstructions; appropriation No. 13, resurvey, part owned by d States, request of Attorney-General United States; west line of Connecti-venue to a point 200 feet south of Chappel road, and located Maj. George A. s's fence and barn; schoolhouse lot on Connecticut avenue extended; square and located stagnant water; part of Columbia road claimed by heirs of iral Quackenbush; square 1061, lot 19, and parts lots 18 and 20, schoolhouse id; square 265, lot 4, and parts of lots 5 and 19, assessor of the District of nbia.

ts recorded.—Condemnation of alley in Bellevue; dedication of part of w's Mite, by Lawrence Sands; dedication of parts of blocks 5, 7, 11, 12, 13, 14, , and 18 by Rosa Wallach and Jesse Brown, widening of Sherman avenue; ation of part of lot 9, block 11, Mount Pleasant, by Dennis and Ellen Murphy, ning of Sherman avenue; dedication of part of lot 1, block 11, Mount Pleas-by Patrick Long, widening of Sherman avenue; extension of High street igh lots 102 and 103, Griswold's addition to Anacostia; dedication of land in y Chase for a roadway, extending southerly from the Circle; dedication of part of lot 9, block 6, Meridian Hill, by W. Pitt Kellogg, widening of Six-h street; dedication of land in front of lots 120 and 121, Washington Heights, lark L. Goddard, widening of Wyoming avenue; Thirty-seventh street, from street to Thirty-second street, by holding and deeds; dedication of land in t extension of Connecticut avenue, through parts of Kalorama Heights and dley Park; extension of Connecticut avenue through parts of Washington hts and Kalorama Heights; Emporia Street from westerly line of South kland to the east line of Twelfth street. Fifty-seven plats of avenues, streets, alleys were furnished and 210 letters written. Ninety seven reports upon ellaneous subjects.

course of improvements on many of the avenues, streets, and alleys through-he District it became necessary to remove the marks of surveys, which were reat value and importance, but through the courtesy of Capt. Lansing H. h, assistant to Engineer Commissioner, who informed the surveyor of the ded improvements by the District authorities, their positions were fixed by urements, by means of which they can be restored with unerring certainty the improvements have been completed. In order to secure the points of ys, measurements to fix their position were made on 219 avenues, streets, lleys.

new my urgent recommendation in previous reports that the Commissioners

provide means by which this office may be furnished with data for surveys in the Anacostia district, in Georgetown, and in the extreme eastern section of the city proper. In Anacostia original lines of survey were made with such general carelessness and inaccuracy that the landmarks now commonly accepted and used by local surveyors have become of great value in that rapidly growing section. I recommend that Mr. William J. Latimer, surveyor, who has a large amount of valuable data among his personal records, be employed to make a map for this office, showing the location and means of identification of points of survey for all block corners and road lines and important landmarks generally throughout the whole of that part of the District south and east of the Eastern Branch; also, that Mr. Henry H. Brewer, surveyor, be employed to tabulate in similar form the essential data in his possession relating to block corners in Georgetown. Thus by obtaining this data, the best now possible, orders for surveys in these two localities, made by the Commissioners or by private individuals, may be executed without obtaining the unofficial assistance in almost every case arising of these two gentlemen, upon whose courtesy the surveyor's office is now so largely dependent.

In the eastern section of the city proper a great many of the original boundary stones of the squares remained undisturbed up to the date of the late civil war, when they were destroyed by the teams engaged in hauling supplies and material to the encampment and government buildings situated thereon. The replacing of them can be done better at this time, while the land is unoccupied, than at a later date, when built upon. This is a matter of grave importance, and I request the especial attention of the honorable Commissioners thereto. The planting of the stones can be done by the surveyor or assistant surveyor at times when not otherwise engaged. Thus contentions as to lines hereafter can be avoided. The sum of $2,000, or so much thereof as may be necessary, is therefore requested, to cover the expenses of the maps heretofore mentioned and the corner stones or other means necessary in marking in a permanent manner of all points which, in the judgment of the surveyor, are worth preserving. Circumstances might easily arise at any time making the carrying out of these recommendations as to Georgetown and Anacostia almost, if not quite, impossible; and the rapidly increasing demand for surveys in the eastern section calls for speedy action there. Time is therefore important in all three cases.

In conclusion, I wish to acknowledge the faithful and efficient services rendered by the personnel of this office, and to acknowledge especially the services of Mr. Henry B. Looker, assistant surveyor, for the competent and energetic performance of the duties devolved upon him.

Very respectfully, your obedient servant,

WM. FORSYTH,
Surveyor, District of Columbia.

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

REPORT OF THE SUPERINTENDENT OF THE PARKING COMMISSION.

WASHINGTON, *July 16, 1897.*

SIR: I have the honor to forward herewith the report for the year ending June 30, 1897.

Very respectfully,

TRUEMAN LANHAM,
Superintendent of Parking, District of Columbia.

The ENGINEER COMMISSIONER OF THE DISTRICT OF COLUMBIA,
(Through Captain Burr.)

Five thousand young trees (seedlings) were set out in nursery rows, consisting of Norway, sugar, and soft maples, American lindens, American elms, "gingkos" (Salisburias), etc. An abundant supply of these and other kinds are in the nursery and of a proper size for planting on the streets. There are also thousands of seedlings in the seed beds of a proper size to set in nursery rows during the next autumn or the coming spring, of which "pin," "red," and "chestnut" oaks, Norway, Vermont, and Southern or black sugar maples, Oriental planes, elms, "gingkos," and soft maples form the majority. While there are yet some Carolina poplars in the nursery, the stock is not being increased, as no more are now being

he streets, because of their destruction of sidewalks and the filling up
rs, etc.
ssion here has been that oak trees were of too slow growth for street
t where "pin" and "red" oaks have been properly planted their growth
ual to any, excepting Carolina poplars, soft maples, and Oriental
this account, therefore, a stock of these is now being grown that they
larger portion of the planting than heretofore and take the place of
softer-wooded trees. Chestnut oaks have not been grown, or planted
s, but from the fact that they are found growing in the District in
nd most barren spots, it is thought that they might do well on the
e a stock of seedlings of this variety has been grown with a view of
a trial.
and four hundred and fifty-five trees were planted on the streets and
city and District, a large portion of said planting having been done on
eights, Connecticut avenue extended, and Cleveland Park.
anding the fact that the spring planting, because of the want of money,
menced until after April 8 (which was quite late), the moist weather
June caused them to make fine growth and they are now looking well.
and one hundred and forty-one trees were blown down by the storm of
9 ultimo, and many since have proved to have been so much injured
moval has been necessary, and these, with the first-named, make the
d about 1,400.
usand eight hundred and sixty trees were protected from injury by
by woven-wire coverings.
and seven hundred and fifty wires which had become tight from the
rees have been readjusted and in some cases placed around smaller

lot of trees at the curbing in the northwest section of the city have
rotected with wire, yet there are some trees in that section at present
, because of a few of the guards becoming too tight and being removed,
on hand to replace them.
red and fifty old and broken wooden tree boxes have been removed
which they no longer protected because of their condition and being

was accomplished in the way of trimming and shaping the trees pre-
29th of September last, when the storm occurred, and the money which
been used for this purpose was used in removing blown-down and
s and in repairing storm damages generally.
s and straps were broken loose from nearly all of the trees of the last
planting, which necessitated the purchase of additional stakes and
er for boxes, and additional cost of labor in preparation of same. The
r alone because of this storm was nearly one-fourth of the annual
m.
was that the appropriation was practically used by the first of Feb-
work was stopped and not resumed until April 8, 1897, then without
n anticipation of an appropriation of $5,000 contained in the "general
ill," which has not yet become a law. Since April 8, of the $5,000 in
entioned bill $4,999.84 have been used for labor and cart hire, divided

bles, sharpening and repairing tools, attending to police	
itting hides for straps, and giving special attention to mat-	
ring it	$394.54
k at the nursery	722.09
nd trees, cutting roots, and relaying brick sidewalks	739.43
e of parkings, mowing grass, repairing temporary fences on	
renue and New York avenue parkings	471.55
rees	627.25
es and planting trees	866.60
of trees on streets	573.30
tree wire guards	219.18
ead trees	348.70
aterpillars	37.11
	4,999.84

The cost of material charged to the annual appropriation was $4,289.97. The total amount expended for labor under the annual appropriation of $20,000 was $15,710.03, divided as follows:

Care of office yard, stables, making and mending tools, removing tree boxes, attending to police reports, gathering seed, and attending to matters of special importance	$1,185.41
General work at nursery, digging trees, making tree boxes, hauling manure, etc	1,191.27
Cultivation of recently planted trees	1,306.04
Placing of wire guards around trees	517.00
Paving around newly planted trees, cutting roots, and relaying disturbed sidewalks	1,118.24
Removing caterpillars	597.70
Trimming trees on streets in regular order and attending to requests of this nature needing special attention	408.56
Care of parkings, seeding, mowing, and keeping temporary fences in repair, etc	1,554.68
Digging tree holes, planting trees, boxing and strapping, etc	3,072.06
Removing blown-down trees, trimming trees, etc., rendered necessary by storm damage of September 29, 1896	4,819.07
Total	15,710.03

The wiring of trees should be continued, and a more substantial wire box used, if it can be found, and if the cost of same is within the ability of parking commission to purchase.

An effort should be made to replant all the missing trees in the established lines on streets this year, if possible. If this idea is carried out, however, there will be nothing left for planting trees on new streets, or parts of streets now ready, or where there are no trees. Whenever new streets are curbed, paved, and ready for tree planting, the owners of abutting property become clamorous for trees, and the result has been that the work of replanting trees in the older portions of the city has been pushed aside in consequence.

From the fact that it has been so difficult to get the appropriations for the planting of trees increased, I have thought it well, when the cost of improving a street is being estimated, that the sum of $5 for every 35 feet of curb line might be added for tree-planting the same, as the improvement of no street is complete without trees. The sum of $20,000 annually appropriated here is only about one-half enough for the care of more than 75,000 trees now on the streets and the continuation of tree planting. The planting of trees has not kept pace with other street improvements, and it is impossible to make it so, unless the appropriations are increased at least 100 per cent or the cost of planting new streets provided for as suggested.

Four foremen were temporarily employed during the month of July, 1896. One becoming physically unfitted for duty, only three were employed during the remainder of the year, and a man detailed from force to act as foreman when needed.

The amounts received by them was as follows:

Annual appropriation	$1,424.23
General deficiency bill (when paid)	573.75
Emergency fund	54.75
Other appropriations	12.00
Total	2,064.73
Number of trees on streets as per last report	75,499
Planted during the year	1,455
Total	76,954
Removed during the year	1,400
Number now on the streets	75,554
Amount of annual appropriation	$20,000.00
Amount expended for labor	15,710.03
Amount expended for material	4,289.97
Amount of appropriation, general deficiency bill	5,000.00
Amount expended for labor	4,999.84
Balance unexpended	.16

SUBDIVISION OF LANDS.

WASHINGTON, *September 30, 1897.*

IR: I have the honor to submit the following report of work in this department the fiscal year ending June 30, 1897:

he constitutionality of the highway act having been tested in the courts during past two years, no section plans have been filed since the recording of the first ion in August, 1895. The suburban parts of the District not covered by the first ion, and known as sections 2, 3, and 4, have been studied in conjunction, so that r completion may follow in close order.

ntative plans of these sections were well advanced more than a year ago, the year adding more in detailed study and in the preparation of data for record. ing the fall and winter a field force was kept almost constantly employed in ocation of azimuth and street lines and in the accurate determination of points ie various subdivisions. The correct notation of all block distances, as required he highway act, has necessitated careful work in the field, and all valuable ts of reference have been preserved by suitable monuments.

ie second section, which embraces the northeast suburbs between North Capitol et extended and the Anacostia River, has been completed for some time. The il sheets were held in the office of the Commissioners of the District of Columbia ling the Supreme Court decision in May, when they were forwarded to the iway commission for final action. A duplicate set of the details was made ng the fall for use in this office.

ie third section, or the county west of Rock Creek, has demanded most of our ntion in the office work. It covers a region varied in topography, offering easy ies on the high grounds and presenting some knotty problems in the eroded s. Work done under the act of 1888 had already furnished a plan in the level ts, and this was accepted with slight change. The whole section has received xhaustive study, both as to details in grades and the broader considerations of nony in plan. It was recognized at the start that a rigid system of right lines impossible from a financial point. Diverse opinions were expressed by the perty holders as to what extent a curved system should be allowed. The plan offered is a combination of fiat curves and direct lines and has met with eral favor.

udies of the section were made on four contour sheets drawn to a scale of 1 i to 200 feet, with contours at 5 feet intervals, which were enlarged from the st Survey sheets. Independent maps or plans were prepared by the different dies in this office, and the map as finally submitted was one compiled from ie separate studies.

he fourth section, or county east of the Anacostia River, has been entirely ered by a tentative plan which is not, however, considered satisfactory. ther study is needed and considerable field work is necessary before the sec- i is finally prepared for record. The plans are laid down on maps similar to se prepared in studies of the third section.

Under the act of 1888, plats of subdivisions of land have been examined for formity to the plans of this office, and surveys and plats have been made for dedication of land in Cliffbourne, Sherman avenue, Griswold's subdivision, evy Chase drive, Connecticut avenue, Emporia street, Nebraska avenue, and Barker tract.

n regard to the future work of this office it may be well to say that the record- of all sections is anticipated to be completed by the end of the present fiscal ar. To provide for a finished condition to the plans I would respectfully suggest it as much of our present force as possible be retained. The filing of the plans ll call for a more complete marking of streets upon the ground, a comprehensive idy of grades, and a set of office or working maps drawn to a scale of 1 inch to) feet. Court proceedings may call for additional work from time to time, hough the extent of such can not be estimated.

Very respectfully,

WM. P. RICHARDS,
Assistant Engineer, Street Extension.

Capt. W. M. BLACK,
Engineer Commissioner, District of Columbia.

REPORT OF THE CHIEF CLERK, ENGINEER DEPARTMENT.

CAPTAIN: I have the honor to submit the following report for the fiscal year ended June 30, 1897:

Communications received, briefed, and recorded in L. R. book	9,205
Indorsements, references, and reports on above	46,025
Letters and orders prepared	5,973
Copies of contracts drawn	668
Vouchers and bills prepared, recorded, and forwarded	5,069

Schedules of bids received during the fiscal year for work and materials under engineer office and statements of contracts for street improvements, sewers, construction material, supplies, and miscellaneous work are herewith.

Very respectfully,

A. Y. LAKENAN,
Chief Clerk, Engineer Department.

Capt. W. M. BLACK,
Corps of Engineers, U. S. A., Engineer Commissioner D. C.

Statement of contracts for the improvement of streets and roads for fiscal year 1897.

No. of contract.	Date.	Name and address of contractor.	Location.	Character of work.
	1896.			
2308	July 25	James O'Day, Washington, D. C.	Illinois avenue	Grade.
2312	July 28	A. Gleeson & Co., Washington, D. C.	Yale, Bismark, Princeton, Harvard, and Columbia.	Do.
2320	July 31	Darius Gaskins, Washington, D. C.	Massachusetts avenue extended	Do.
2335	Aug. 26	Washington Asphalt Block and Tile Co., Washington, D. C.	F SW., from Seventh to Tenth, and I SW., from Third to Sixth.	Lay asphalt block pavement.
2337	Aug. 27	M. F. Talty, Washington, D. C.	M NE., from Second to Fourth.	Grade, and remove and pile curb and sidewalk brick.
2338	...do....	R. Horn & W. Hussey, Washington, D. C.	Roanoke, from Sherman avenue to Thirteenth.	Remove material from and deposit in Harvard, from Sherman avenue to Thirteenth.
2340	Aug. 25	J. Frawley, Washington, D. C.	Kentucky avenue SE., from Lincoln square to B, and Thirteenth SE., from East Capitol to D.	Grade, set curb, pave gutters, lay flag crossings, and gravel roadway.
			Florida avenue NE., from Ninth to M.	Grade, set curb, pave gutters, lay flag crossings, and macadam roadway.
2341	Aug. 28	G. B. Mullin, Washington, D. C.	Connecticut avenue extended, west of Rock Creek.	Grade.
2343	Aug. 29	F. M. Kemp & Sons, Middletown, Ohio.	Upon such sidewalks as are ordered paved.	Lay cement pavement.
2350	Sept. 16	Barber Asphalt Paving Co., New York City.	Upon such streets and avenues as are ordered paved.	Lay standard asphalt pavement.
2372	Dec. 3	R. Seek, Takoma, Md.	Erie, from Meridian avenue to Central avenue.	Grade.
2373	Dec. 5	G. B. Mullin, Washington, D. C.	Pierce, from Jefferson to High, and High, from Pierce to Arthur, Anacostia, D. C.	Do.
2379	Mar. 16	Washington Asphalt Block and Tile Co.	L, from Fourth to Eighth	Grade, haul and set curb, lay cobble gutters, and gravel roadway.
2385	Apr. 15	M. F. Talty, Washington, D. C.	North Capitol street through and north of Prospect Hill Cemetery.	Grade.
2386	Apr. 17	Jos. Robson, Washington, D. C.	Over Piney Branch at Illinois avenue.	Construct culvert.
2404	June 28	Richard Horn & Son, Washington, D. C.	Alleys, square 457	Pave with vitrified block.

Statement of [illegible]

No. of contract.	Date.	Name and address of contractor.	Location.	To construct—
	1898.			
			Fourteenth street NW., from Park to Center	1,520 linear feet 2.5 by 3.75 feet pipe sewer. 250 linear feet 2.25 by 3.375 feet pipe sewer. 345 linear feet 2 by 3 feet pipe sewer.
2323	Aug. 8	E. G. Gummel, Washington, D. C.	Princeton street NW., from Sherman avenue to Thirteenth.	840 linear feet 24-inch pipe sewer.
			A street SE., from Massachusetts avenue to Fourteenth.	520 linear feet 21-inch pipe sewer.
			B street SE., from Thirteenth to Fourteenth	500 linear feet 21-inch pipe sewer.
2324	Aug. 12	Thos. Buckley, Washington, D. C.	Ninth street SE., from Virginia avenue to M	570 linear feet 21-inch pipe sewer.
2325	Aug. 5	Jno. J. Shipman, Washington, D. C.	Fifth street, Petworth, from Newark to Omaha	390 linear feet 2 by 3 feet sewer.
			Flagler place, from V street to Reservoir sewer	1,200 linear feet 6.55 feet diameter circular sewer.
2328	Aug. 12	Lyons Bros., Washington, D. C.	F street, portion of F street, and Easby's Point intercepting sewer.	725 linear feet 6.50 feet diameter circular sewer. 1,100 linear feet 6.25 feet diameter circular sewer. 295 linear feet 6 feet diameter circular sewer. 880 linear feet 4.5 feet diameter circular sewer. 650 linear feet 4.25 feet diameter circular sewer. 510 linear feet connections.
2360	Oct. 16	Jas. McCandlish, Washington, D. C.	Canal street SE., from N to Anacostia River	640 linear feet 24-inch pipe sewer.
			I street SW., from First to Delaware avenue	220 linear feet 5.25 feet circular sewer.
			I street SW., from Delaware avenue to Second	200 linear feet 4.75 feet circular sewer.
			I street SW., from Second to Third	485 linear feet 4.5 feet circular sewer.
2361	Oct. 20	R. M. Moore & Co., Philadelphia, Pa.	Third street SW., from G to I	660 linear feet 3 by 4.5 feet egg-shaped sewer.
			Third street SW., from F to G	310 linear feet 3.25 by 4.875 feet egg-shaped sewer.
			Third street SW., from E to F	342 linear feet 3 by 4.5 feet egg-shaped sewer.
			E street SW., from Third to Four-and-a-half	570 linear feet 2.75 by 4.125 feet egg-shaped sewer.
2367	Nov. 23	Guiney & Coyle, Washington, D. C.	Third street NE., from F to G	570 linear feet 24-inch pipe sewer.
2368	Nov. 24	Adam McCandlish, Washington, D. C.	Whitney avenue, from Fourteenth street to Holmead avenue.	610 linear feet 21-inch pipe sewer.
2387	Apr. 23	.....do.....	Thirty-fifth street NW., from U to Madison	1,100 linear feet 12-inch pipe sewer.
			Line of alley between Richmond and Savannah streets, from Minnesota to Brightwood avenue; Brightwood avenue, from Quincy to Savannah, and Quincy, from Brightwood avenue and Eighth.	3,400 linear feet 18-inch pipe sewer.
2390	May 19	R. M. Moore & Co., Philadelphia, Pa.	Valley of Piney Branch, from Trenton to Brandywine.	3,900 linear feet 21-inch pipe sewer.
			Illinois avenue, from Brandywine to Flint, and Brightwood avenue, from Flint to Niagara.	4,100 linear feet 12-inch pipe sewer.
2393	June 4	Andrew Gleeson, Washington, D. C.	Sixth street, from K to N SE	550 linear feet 6 foot 3 inch pipe sewer. 500 linear feet 4 foot 3 inch circular sewer.
2394	....do...	E. G. Gummel, Washington, D. C.	C street, from Delaware avenue to First NE	415 linear feet 12-inch pipe sewer.
			P street, from Thirty-first to Valley NW	1,075 linear feet 12-inch pipe sewer.
			T street, from Ninth to Tenth NW	520 linear feet 12-inch pipe sewer.
			Providence street, from Twelfth to Thirteenth, Brookland.	660 linear feet 15-inch pipe sewer.

Statement of contracts for constructing sewers during fiscal year 1897—Continued.

No. of contract.	Date.	Name and address of contractor.	Location.	To construct—
	1896.			
2294	June 4	E. G. Gummel, Washington, D. C.	Woodley road, from Connecticut avenue to Belmont avenue NW.	180 linear feet 24-inch pipe sewer.
			Connecticut avenue, from Woodley road to Kalorama avenue NW.	720 linear feet 21-inch pipe sewer.
			Twentieth street, from Woodley road to Kalorama avenue NW.	210 linear feet 12-inch pipe sewer.
			Fifteenth street, from Georgia avenue to C street SE.	590 linear feet 24-inch pipe sewer. 465 linear feet 21-inch pipe sewer. 425 linear feet 15-inch pipe sewer.
			Alley of square 1075	310 linear feet 15-inch pipe sewer.
			Eighth street, from B to C SE.	57 linear feet 18-inch pipe sewer. 510 linear feet 15-inch pipe sewer.
			W street, from Fourteenth to Fifteenth NW.	55 linear feet 15-inch pipe sewer. 150 linear feet 18-inch pipe sewer. 575 linear feet 21-inch pipe sewer.
			Fifteenth and New Hampshire avenue, from V to W NW.	485 linear feet 18-inch pipe sewer.
			V street, from New Hampshire avenue to Seventeenth NW.	985 linear feet 24-inch pipe sewer.
			Thirty-seventh street, from N to O NW.	380 linear feet 18-inch pipe sewer.
			S street, from Florida avenue to Connecticut avenue NW.	140 linear feet 21-inch pipe sewer.
			G street, from New Hampshire avenue to Twenty-seventh NW.	580 linear feet 21-inch pipe sewer. 70 linear feet 24-inch pipe sewer.
			D street, from Fourteenth to Fifteenth NE.	260 linear feet 18-inch pipe sewer. 260 linear feet 21-inch pipe sewer.
			Thirteenth street, from C to D NE.	390 linear feet 15-inch pipe sewer.
			D street, from Thirteenth to Tennessee avenue NE.	640 linear feet 21-inch pipe sewer.
			Fourteenth street, from East Capitol to A street NE.	375 linear feet 21-inch pipe sewer.
			Kalorama avenue, from Nineteenth to Twenty-third NW.	1,000 linear feet 12-inch pipe sewer.
2297	June 8	James McCandlish, Washington, D. C.	Sixteenth street, from Georgia avenue to D SE.	380 linear feet 21-inch pipe sewer. 255 linear feet 18-inch pipe sewer. 160 linear feet 12-inch pipe sewer.
			G street, from Seventeenth to Nineteenth NW.	425 linear feet 18-inch pipe sewer. 120 linear feet 15-inch pipe sewer. 980 linear feet 12-inch pipe sewer.
			S street, from Thirty-fourth to Thirty-fifth NW.	355 linear feet 15-inch pipe sewer.
2299	June 11	Bolden & Wormley, Washington, D. C.	Seventeenth street, from B to Massachusetts avenue SE.	550 linear feet 24-inch pipe sewer.
		W. H. H. Allen, Washington, D. C.	Hampton place, from Twentieth to Rock Creek NW.	500 linear feet 30-inch pipe sewer.

Statement of contracts for furnishing construction material for fiscal year 1897.

No. of contract.	Date.	Name and address of contractor.	To furnish—
	1896.		
225	July 13	M. J. Drummond, New York City	Cast-iron water pipe.
226	July 10	Chatto & Condon, Brookville, Me	Granite curbing.
230	July 20	Columbia National Sand Dredging Co., Washington, D. C.	Sand and pebbles.
235	July 21	John B. Lord, Washington, D. C	Sand.
236	July 10	Pennsylvania Globe Gaslight Co., Philadelphia, Pa.	Street lanterns.
311	July 22	J. Merrick Horn, Wilmington, Del	Granite curbing.
319	July 29	Midvale Foundry Co., Allentown, Pa	Lamp-posts.
321	Aug. 5	John Miller, Washington, D. C	Sewer bricks.
331	Aug. 24	Lawrenceville Cement Co., New York City	Natural hydraulic cement.
336	Aug. 27	Charles Ford, Washington, D. C	Paving bricks.
339	Aug. 25	Dunbar Bros., Sullivan, Me	Granite curbing.
345	Aug. 28	John Miller, Washington, D. C	Paving bricks.
346	Sept. 3	Jas. H. McGill, Washington, D. C	Portland cement.
348	Sept. 15	Washington Asphalt Block and Tile Co., Washington, D. C.	Asphalt paving blocks.
351	Sept. 21	Angus Lamond, Takoma, D. C	Invert blocks for sewers.
352	Sept. 24	Potomac Terra Cotta Co., Washington, D. C.	Terra cotta sewer pipe.
353	Sept. 25	T. Somerville & Sons, Washington, D. C	Do.
356	Sept. 24	Savage Fire Brick Co., Keystone Junction, Pa.	Vitrified bricks for sewer inverts.
362	Oct. 26	T. Somerville & Sons, Washington, D. C	Terra cotta sewer pipe.
363	Oct. 24	Savage Fire Brick Co., Keystone Junction, Pa.	Re-pressed vitrified paving bricks.
364	Oct. 26	McMahan, Porter & Co, New Cumberland, W. Va.	Do.
365	Oct. 27	John M. Mack, Philadelphia, Pa	Do.
366	Oct. 23	Potomac Terra Cotta Co., Washington, D. C.	Terra cotta sewer pipe.
375	Dec. 28	M. J. Drummond, New York City	Street and fire hydrants.
	1897.		
377	Mar. 1	John P. Gordon, Franklin, Me	Granite curbing.
378	Feb. 26	J Merrick Horn, Wilmington, Del	Do.
386	Apr. 29	Midvale Foundry Co., Allentown, Pa	Lamp-posts.
403	June 25	Thos. Somerville & Sons, Washington, D. C.	Sewer pipe.
408	....do....	Potomac Terra Cotta Co., Washington, D. C.	Terra cotta sewer pipe and branches.

atement of construction, hauling, and miscellaneous contracts for fiscal year 1897.

o. of con-. tract.	Date.	Name and address of contractor.	Description.
	1896.		
242	July 2	Littlefield, Alvord & Co., Washington, D. C.	Haul vitrified block, paving bricks, and curb.
246	July 9	Darius Gaskins, Washington, D. C	Haul sand, vitrified block, and bricks.
253	July 15	American Fire Engine Co., Seneca Falls, N. Y.	Furnish 2 Clapp & Jones fire engines.
256	July 17	W. W. Winfree, Washington, D. C	Reconstructing and enlarging Wallach school building.
257	July 20	Potomac Electric Power Co., Washington, D. C.	Furnish, operate, repair, and maintain 50 or more incandescent electric lights in various localities.
210	July 23	W. C. Miller, Washington, D. C	Drive deep wells.
218	July 24	Manchester Locomotive Works, Manchester, N. H.	Furnish fire engine.
227	Aug. 3	Pennsylvania Globe Gaslight Co., Philadelphia, Pa.	Furnish, operate, and maintain naphtha lights.
229	July 31	Washington Gaslight Co., Washington, D. C	Supply illuminating gas, etc., and maintain gas-lighting service.
230	Aug. 19	Georgetown Gaslight Co., Washington, D. C	Do.
244	Sept. 2	A. Davis, jr., Fairfax, Va	Furnish and set telegraph poles.
247	Sept. 12	Preston Dudley, Washington, D. C	Raise and move house of Isadore Duchesne on Sherman avenue.
249	Sept. 15	Warren W. Biggs, Washington, D. C	Construct heating apparatus at smallpox hospital, reservation 13.
254	Sept. 23	Richard Seek, Takoma, Md	Raise and move house of D. C. Murphy on Sherman avenue.
255	Sept. 29	Henry F. Getz, Washington, D. C	Take down old building and construct new one at Garfield Hospital.
267	Oct. 2	C. Thomas & Son, Washington, D. C	Construct engine house in Bloomingdale, D. C.

Statement of construction, hauling, and miscellaneous contracts, etc.—Continued.

No. of contract.	Date.	Name and address of contractor.	Description.
2358	Oct. 7	Pavarini & Greer, Washington, D.C	Construct frame schoolhouse in Langdon, D. C.
2359	Oct. 14	C. Thomas & Son, Washington, D.C.	Construct additional story and tower to schoolhouse at Congress Heights, D.C.
2369	Nov. 25	do	Construct schoolhouse at Fifth and K streets NE.
2370	Nov. 30	H. I. Gregory, Washington, D.C	Construct heating apparatus in schoolhouse Fifth and K streets NE.
2371	Dec. 2	Potomac Electric Power Co., Washington, D.C	Furnish and maintain electric arc lamps.
2374	Nov. 23	W. F. Beers & Co., Washington, D.C.	Construct schoolhouse near Conduit road, District Columbia.
2376	Dec. 30	James M. Dunn, Washington, D.C.	Construct engine house in Brightwood, D.C.
2380	Mar. 19	William C. Peake, Washington, D.C.	To erect the Western High School building.
2381	Mar. 24	Peter McCartney, Washington, D.C.	Construct school building southeast corner Ninth and E streets SW.
2382	Mar. 27	H. I. Gregory, Washington, D. C.	Furnish hot-air furnaces for school building, Ninth and E streets SW.
2383	Mar. 29	C. A. Dean and Geo. McDermott, Alexandria, Va.	Construct new hull and make repairs to harbor boat *Joe Blackburn*.
2389	May 5	H. I. Gregory, Washington, D. C.	Construct Smead heating and ventilating apparatus in Congress Heights school building.
2392	June 2	Washington Gaslight Co., Washington, D. C.	Supply illuminating gas and maintain service.
2395	June 4	Georgetown Gaslight Co., Washington, D. C.	Do.
2396	June 3	Pennsylvania Globe Gaslight Co., Washington, D. C.	Furnish, operate, and maintain naphtha lamps.
2398	June 9	Potomac Electric Power Co., Washington, D. C.	Furnish, operate, and maintain incandescent electric lamps.
2400	June 16	do	Furnish, operate, and maintain electric arc lamps.
2401	June 18	R. V. Rusk, Washington, D. C.	Clean unpaved alleys and streets.
2402	June 24	F. Springmann, Washington, D. C	Haul pipes, castings, hydrants, valves, etc.
2406	June 28	Philadelphia Steam Heating Co., Philadelphia, Pa.	Construct heating plant for hospital department, Washington Asylum.

Statement of contracts for general supplies for fiscal year 1897.

No. of contract.	Date.	Name and address of contractor.	To furnish—
	1896.		
2240	June 26	Royce & Marean, Washington, D. C	Telegraph and telephone supplies.
2241	June 29	H. I. Gregory, Washington, D. C	Tinware.
2243	July 7	W. M. Galt & Co., Washington, D. C.	Groceries.
2244	do	do	Forage.
2245	do	Hartman & Cadick, Washington, D. C.	Blank forms, and printing.
2247	July 8	W. H. Butler, Washington, D. C	Glass, paints, and varnish.
2248	July 9	Geo. White's Sons, Washington, D. C.	Miscellaneous castings.
2249	July 8	John B. Daish, Washington, D. C.	Groceries.
2250	do	do	Forage.
2251	July 9	W. T. Galliher & Bro, Washington, D. C.	Lumber.
2252	do	Mitchell & Reed, Washington, D. C.	Plumber's material.
2253	July 10	Z. D. Gilman, Washington, D. C.	Drugs.
2254	do	Jas. F. Oyster, Washington, D. C	Groceries.
2255	July 9	M. W. Beveridge, Washington, D. C.	Furniture.
2256	July 10	C. G. Stott & Co., Washington, D. C.	Stationery.
2257	do	B. Rich & Sons, Washington, D. C	Dry goods.
2258	do	do	Boots and shoes.
2259	do	Lutz & Co., Washington, D. C.	Saddlery.
2260	July 11	Frank Lillie, Washington, D. C	Fuel.
2261	July 10	Easton & Rupp, Washington, D. C.	Stationery.
2262	July 13	Rufus P. Clarke, Washington, D. C.	Dry goods.
2263	do	H. P. Pillsbury, Washington, D. C.	Forage.
2264	do	Johnson Bros, Washington, D. C.	Fuel.

of contract for general supplies for fiscal year 1897—Continued.

Name and address of contractor.	To furnish—
Scheller & Stevens, Washington, D. C	Drugs.
Kennedy & Du Perow, Washington, D. C	Telegraph and telephone supplies.
F. P. May & Co., Washington, D. C	Tinware.
do	Hardware.
Lansburg & Bro., Washington, D. C	Dry goods.
John Wanamaker, Philadelphia, Pa	Stationery.
do	Furniture.
do	Dry goods.
F. A. Schmidt, Washington, D. C	Stationery.
Jas. E. Stake, Washington, D. C	Groceries.
Great Falls Ice Co., Washington, D. C	Ice.
R. H. Hood, Washington, D. C	Miscellaneous castings.
Riley & Walker, Washington, D. C	Lumber.
V. Baldwin Johnson, Washington, D. C	Fuel.
R. C. Ballantyne, Washington, D. C	School books.
do	Stationery.
T. Somerville & Sons, Washington, D. C	Plumbers' material.
Somerset R. Waters, Washington, D. C	Groceries.
Mackall Bros. and Flemer, Washington, D. C.	Drugs.
do	Glass, paints, and varnish.
B. S. Adams, Washington, D. C	Blank forms and printing.
John J. O'Day, Washington, D. C	Forage.
Thos. T. Keane, Washington, D. C	Fresh meat and corned beef.
Church & Stephenson, Washington, D. C	Lumber.
M. J. Drummond, New York City	Plumbers' material.
J. C. Ergood & Co., Washington, D. C	Groceries.
Frank Hume, Washington, D. C	Do.
New York Lubricating Oil Co., New York City.	Oil.
Austin, Nichols & Co., New York City	Groceries.
I. Clark Seamans, New York City	Stationery.
Hyman Powdermaker, Washington, D. C	Fresh meat and corned beef.
George F. Muth & Co., Washington, D. C	Stationery.
do	Hardware.
do	Glass, paints, and varnish.
F. A. Tschiffely, Washington, D. C	Drugs.
P. H. Sheehy, Washington, D. C	Groceries.
Blum Bros., Washington, D. C	Do.
do	Tinware.
do	Dry goods.
do	Furniture.
do	Hardware.
Dunlap Printing Co., Philadelphia, Pa	Blank forms and printing.
W. B. Moses & Sons, Washington, D. C	Furniture.
W. A. Pate, Washington, D. C	Hardware.
do	Saddlery.
do	Telegraph and telephone supplies.
Charles E. Hoover, Washington, D. C	Fresh meat and corned beef.

Proposals for driving wells, opened July 8, 1896.

[Price per linear foot.]

and address of bidder.	Through sand or gravel.	Through earth or clay.	Through soft rock.	Through hard rock.	Drive-pipe or casing in well.
Anacostia, D. C. *a*	$0.98	$0.98	$1.75	$2.15	$0.68
Washington, D. C	1.54	1.32	1.82	2.99	.67
ard, Leesburg, Va	1.50	.90	1.30	2.70	.95
n, Newark, N. J	2.25	2.00	2.50	3.00	(*d*)
Kaufman, Washington, D. C	1.36	1.06	1.95	2.85	.66
truction Co., New York City *b*	3.65	3.65	5.00	5.50	.45
, Jenkintown, Pa	1.25	1.25	2.00	3.00	.85
ashington, D. C	1.80	1.00	1.80	2.80	.74
g and Drilling Co., Scranton, Pa. *c*					
ns, Baltimore, Md. *c*					

1.
bid for each foot: 1 to 50 feet, $3; 50 to 100 feet, $3.50; 100 to 150 feet, $3.75; 150 to to 250 feet, $5.
l after opening; not considered.
e.

Proposals for the construction of sewers, opened August 1, 1896.

Name and address of bidder.	Sewer A, 1,200 linear feet of 6.55-inch diameter sewer in Flagler place, between V street and outlet of reservoir sewer. (Price per cubic yard.)				Sewer B, in Fourteenth street road, between Park and Center streets. (Price per linear foot.)				Sewer Fil street tween ark a Oma stree (Price linear f
	For excavation above sewer subgrade, including excavation for manholes, etc.	For brick masonry laid in natural cement mortar; including plastering, etc.	For vitrified-brick masonry in Portland cement.	For concrete masonry in place with natural cement mortar.	1,520 linear feet 2.5 by 3.75 inch sewer.	280 linear feet 2.25 by 3.375 inch sewer.	345 linear feet 2 by 3 inch sewer.	Manholes, each.	300 linear feet of 2 by 3 inch sewer.
John P. Larguey, Washington, D. C	$0.28	$8.00	$16.00	$5.00	$5.60	$5.30	$4.65	$23.00	
T. M. Lesher & Son, Easton, Pa	.46	9.00	15.00	6.00					
B. J. Coyle, Washington, D. C	.48	9.00	19.00	6.00	6.37	6.55	5.50	30.00	
Lyons Bros., Washington, D. C	.30	7.73	15.50	4.42	4.88	4.74	4.65	30.00	
John Jacoby, Wilmington, Del	.40	8.00	17.50	5.00	5.50	5.00	4.25	35.00	
Thos. Buckley, Washington, D. C	.45	9.53	18.10	5.50	6.20	5.98	5.14	30.00	a4.91 a
John J. Shipman, Washington, D. C	a.39	a 6.98	a 14.00	a 4.90	5.65	4.90	4.70	35.00	
Horn & Hussey, Washington, D. C	.30	8.72	16.29	5.24	7.97	7.50	5.80	30.00	
E. G. Gummel, Washington, D. C	.27	7.87	15.87	4.71	a 4.85	a 4.22	a 4.02	a 25.00	4.95
H. C. Bolden, Washington, D. C	.72	8.95	15.25	4.85	6.40	5.95	5.35	28.00	8.90
Jas. McCandlish, Washington, D. C	.25	8.00	15.00	5.18	5.73	5.25	4.70	30.00	
Guinney & Coyle, Washington, D. C									

Name and address of bidder.	Sewer D, Princeton street, between Sherman avenue and Thirteenth street. (Price per linear foot.)		Sewer E, A street SE., between Massachusetts avenue and Fourteenth street. (Price per linear foot.)		Sewer F, B street SE., between Thirteenth and Fourteenth streets. (Price per linear foot.)		Sewer (Ninth st SE., betw Virginia nue and street (Price p linear fo
	840 linear feet of 24-inch pipe sewer.	Manholes, each.	520 linear feet of 21-inch pipe sewer.	Manholes, each.	500 linear feet of 21-inch pipe sewer.	Manholes, each.	570 linear feet of 21-inch pipe sewer.
John P Larguey, Washington, D. C	$1.90	$25.00	$1.60	$25.00	$1.60	$25.00	$1.60
T. M. Lesher & Son, Easton, Pa							
B. J. Coyle, Washington, D. C							
Lyons Bros., Washington, D. C	1.81	23.00	1.70	25.00	1.65	25.00	1.55
John Jacoby, Wilmington, Del							
Thos. Buckley, Washington, D. C	1.65	25.00	1.55	26.00	1.50	25.00	1.48
John J. Shipman, Washington, D. C							
Horn & Hussey, Washington, D. C	2.20	25.00	1.92	25.00	1.92	25.00	1.92
E. G. Gummel, Washington, D. C	a 1.52	a 25.00	a 1.37	a 25.00	a 1.34	a 25.00	a 1.23
H. C. Bolden, Washington, D. C							
Jas. McCandlish, Washington, D. C							
Guinney & Coyle, Washington, D. C	1.85	18.00	1.68	17.00	1.65	17.00	1.60

a Bid accepted.

Proposals for construction of sewers, opened October 10, 1896.

Name and address of bidder.	640 linear feet of 24-inch pipe sewer in Canal street SE., between N street and Anacostia River (per linear foot).
ıdlish, Washington, D. C	*a* $1.35
ıl, Washington, D. C	1.39
ruey, Washington, D. C	1.75

a Bid accepted.

posals for the construction of sewers, opened September 28, 1896.

nd address of bidder.	Sewer A, I street SW., between First and Third streets, and Third street SW., between G and I streets.				
	For excavation above sewer subgrade, including manholes, etc. (5,117 cubic yards), per cubic yard.	For brick masonry laid in natural cement mortar (398 cubic yards), per cubic yard.	For vitrified brick masonry laid in Portland cement mortar (98 cubic yards), per cubic yard.	For vitrified block invert laid in Portland cement mortar (1,565 linear feet), per linear foot.	For concrete masonry in place, including all forms, etc. (345 cubic yards), per cubic yard.
& Co., Philadelphia, Pa. *a*	$0.48	$9.54	$15.49	$0.75	$4.24
ıey, Washington, D. C	.60	9.00	18.00	.85	6.00
ıl, Washington, D. C	.65	7.97	15.87	.70	4.41
ıan, Washington, D. C	.60	7.50	14.00	.75	4.50
lish, Washington, D. C	.67	7.70	15.50	.77	4.44

nd address of bidder.	Sewer B, Third street SW., between E and G streets, and E street SW., between Third and Four-and-a-half streets.				
	For excavation above sewer subgrade, including manholes, (2,860 cubic yards), per cubic yard.	For brick masonry laid in natural cement mortar (253 cubic yards), per cubic yard.	For vitrified brick masonry laid in Portland cement mortar (53 cubic yards), per cubic yard.	For vitrified block invert laid in Portland cement mortar (1,222 linear feet), per linear foot	For concrete masonry in place, including forms, etc., per cubic yard.
& Co., Philadelphia, Pa, *a*	$0.48	$7.54	$15.49	$0.75	$4.24
ıey, Washington, D. C	.70	9.50	19.00	.90	6.50
ıl, Washington, D. C	.65	7.97	15.87	.70	4.41
ıan, Washington, D. C	.65	8.00	16.00	.70	4.50
lish, Washington, D. C	.77	7.70	15.50	.77	4.44

a Bid accepted.

roposals for construction of sewers, opened November 16, 1896.

f bidder.	Sewer A, Whitney avenue, between Holmead avenue and Fourteenth street (610 linear feet), 21-inch pipe.		Sewer B, Third street, between F and G streets northeast (570 linear feet), 24-inch pipe.		Sewer C, Thirty-fifth street, between U and Madison streets (1,100 linear feet), 12-inch pipe.	
	Sewer.	Three manholes.	Sewer.	Three manholes.	Sewer.	Seven manholes.
	Lin. feet.	*Each.*	*Lin. feet.*	*Each.*	*Lin. feet.*	*Each.*
ıdlish	*a* $1.15	*a* $60.00	$1.75	$90.00	*a* $0.75	*a* $140.00
yle	1.30	42.00	*a* 1.74	*a* 60.00	.90	98.00
ıl	1.22	75.00	1.70	90.00	.81	175.00

a Bid accepted.

Proposals for the construction of sewers; opened March 17, 1897.

[Sewers, price per linear foot; manholes, each.]

Name and address of bidder.	Sewer A.				Sewer B.		
	2,500 linear feet of 24-inch pipe sewer in valley of Piney Branch, between Fourteenth street road and Savannah street.	Manholes for same.	700 linear feet of 21-inch pipe sewer in valley of Piney Branch, between Savannah and Trenton streets.	Manholes for same.	2,100 linear feet of 24-inch pipe sewer in valley of Piney Branch, between Fourteenth street road and Savannah street.	Manholes for same.	850 linear feet of 21-inch pipe sewer in valley of Piney Branch, between Savannah and Trenton streets.
R. M. Moore & Co., Philadelphia, Pa	$1.51	$25	$1.39	$25	$1.70	$25	$1.55
James Frawley, Washington, D. C	1.79½	22	1.77	22	1.83	25	1.86
Adam McCandlish, Washington, D. C	1.37	25	1.35	25	1.50	25	1.65
John Jacoby, Wilmington, Del	2.10	25	2.34	25	2.10	25	2.32
Andrew Gleeson, Washington, D. C	1.78	28	2.31	28	2.09	30	2.31
E. G. Gummel, Washington, D. C	1.53	30	1.44	30	1.76	34	1.95
James McCandlish, Washington, D. C	1.45	24	1.45	24	1.60	25	1.80
B. J. Coyle, Washington, D. C	1.75	20	1.60	20	2.32	30	2.70

Name and address of bidder.	Sewer C.		Sewer D.		Sewer E.
	3,900 linear feet of 21-inch pipe sewer in valley of Piney Branch, between Trenton and Brandywine streets.	Manholes for same.	4,100 linear feet of 12-inch pipe sewer in Illinois avenue, between Brandywine and Flint streets, and Brightwood avenue, between Flint and Niagara streets.	Manholes for same.	3,400 linear feet of 18.4-inch pipe sewer in line of alley, between Richmond and Savannah streets, from Minnesota avenue to Brightwood avenue, and in Brightwood avenue, between Quincy and Savannah streets, and in Quincy, between Brightwood avenue and Eighth street.
R. M. Moore & Co., Philadelphia, Pa	$1.39	$25	$0.85	$25.00	$1.29
James Frawley, Washington, D. C	1.89	22	.79½	19.50	.....
Adam McCandlish, Washington, D. C	1.65	25	.87	25.00	1.21
John Jacoby, Wilmington, Del	2.34	35	1.26	25.00	1.70
Andrew Gleeson, Washington, D. C	1.70	28	1.15	28.00	1.70
E. G. Gummel, Washington, D. C	1.51	32	.98	32.00	1.95
James McCandlish, Washington, D. C	1.70	24	.88	24.00	1.60
B. J. Coyle, Washington, D. C	1.60	25	1.02	25.00	1.40

Proposals for sewers, opened May 22, 1897.

Name of bidder.	Sewer P.										
	15-inch (55 feet).	Manholes (2).	18-inch (150 feet).	Manhole (1).	21-inch (575 feet).	Manholes (4).	18-inch (485 feet).	Manholes (3).	24-inch (935 feet).	Manholes (5).	Total.
Wormley & Bolden	$1.65	$25.00	$1.70	$25.00	$1.75	$25.00	$1.70	$25.00	$1.90	$25.00	$4,328.00
John P. Larguey	1.15	25.00	1.50	25.00	1.70	25.00	1.50	25.00	2.15	30.00	4,403.50
E. G. Gummel	1.11	26.00	1.38	27.00	1.57	28.00	1.38	27.00	1.96	30.00	4,094.70
Jas. McCandlish	1.47	35.00	1.67	35.00	1.93	35.00	1.67	35.00	2.40	35.00	5,020.05
Jno. Jacoby	1.30	30.00	1.60	30.00	1.80	35.00	1.60	30.00	2.00	35.00	4,487.50

Name of bidder.	Sewer Q.			Sewer R.		
	15-inch (355 feet).	Manholes (2).	Total.	18-inch (380 feet).	Manholes (2).	Total.
Wormley & Bolden	$1.95	$29.00	$750.25	$2.00	$29.00	$818.00
E. G. Gummel	1.11	25.00	444.05	1.46	28.00	610.80
Jas. McCandlish	.99	25.00	401.45	1.47	30.00	618.60
Jno. Jacoby	1.50	30.00	592.50	1.80	35.00	754.00

Name of bidder.	Sewer S.			Sewer T.				
	21-inch (140 feet).	Manhole (1).	Total.	21-inch (580 feet).	Manholes (2).	24-inch (70 feet).	Manhole (1).	Total.
Wormley & Bolden	$2.00	$29.00	$309.00	$2.00	$29.00	$2.10	$29.00	$1,394.00
E. G. Gummel	1.57	28.00	247.80	1.36	25.00	1.52	25.00	970.20
Jas. McCandlish	1.87	27.00	238.80	1.87	25.00	2.40	25.00	1,327.60
Jno. Jacoby	2.00	35.00	315.00	1.40	30.00	1.60	30.00	1,014.00

Name of bidder.	Sewer W.					Sewer V.		
	18-inch (260 ft.)	Manhole (1).	21-inch (260 ft.)	Manhole (1).	Total.	15-inch (390 ft.)	Manhole (1).	Total.
Wormley & Bolden	$2.00	$29.00	$2.05	$29.00	$1,111.00	$1.30	$23.00	$530.00
John P. Larguey	1.75	30.00	2.20	36.00	1,093.00	1.25	25.00	512.50
E. G. Gummel	1.48	33.00	1.80	39.00	924.80	1.02	28.00	425.80
Jas. McCandlish	1.57	35.00	1.77	35.00	938.40	1.23	25.00	504.70
Jas. Frawley						1.23	22.00	501.70
Jno. Jacoby	2.00	40.00	1.90	35.00	1,089.00	1.60	35.00	659.00
Cranford Paving Co	1.539	33.60	1.80	38.22	939.96			

Name of bidder.	Sewer W.			Sewer X.		
	21-inch (640 ft.).	Manholes (2).	Total.	21-inch (375 ft.).	Manhole.	Total.
Wormley & Bolden	$1.40	$23.00	$942.00	$1.50	$23.00	$608.50
John P. Largney	1.55	25.00	1,042.00	1.60	25.00	650.00
E. G. Gummel	1.34	28.00	913.60	1.40	28.00	581.00
Jas. McCandlish	1.67	25.00	1,118.80	1.72	30.00	705.00
Jas. Frawley	1.57	24.00	1,052.80	1.67	23.00	672.25
Jno. Jacoby	1.75	35.00	1,190.00	1.90	35.00	782.50
Cranford Paving Co	1.42	25.20	959.20	1.49	27.30	613.35

Proposals for construction of sewers, opened June 16, 1897. (Sewer F.)

Name of bidder.	30-inch diameter. (500 feet).	Manhole (1).	24-inch diameter. (360 feet).	Manhole (2).	Total.
W. H. H. Allen	$4.84	$150.00	$169.00	$30.00	$3,238.40
Jas. McCandlish	4.96	196.00	177.00	25.00	3,383.20

Proposals for sewers, opened May 22, 1897.

Name of bidder.	Sewer J.		
	24-inch (550 ft.).	Manholes (2).	Total
Wormley & Bolden	$1.80	$24.00	$1,09
Jno. P. Larguey	2.20	35.00	1,28
E. G. Gummel	2.10	36.00	1,22
Jas. McCandlish	1.97	45.00	1,17
Jno. Jacoby	2.20	40.00	1,29
Cranford Paving Co	2.00	37.80	1,17

Name of bidder.	Sewer K.						
	24-inch (590 ft.).	Manholes (2).	21-inch (465 ft.).	Manholes (2).	15-inch (425 ft.).	Manholes (2).	Tot
Wormley & Bolden	$1.70	$23.00	$1.65	$23.00	$1.60	$23.00	$2,58
Jno. P. Larguey	1.65	25.00	1 45	25.00	1.10	25.00	2,28
E. G. Gummel	1.57	28.00	1.35	28.00	1.01	27.00	2,14
Jas. McCandlish	1.77	27.00	1.57	25.00	1.17	20.00	2,41
Jas. Frawley	1.665	22.00	1.46	22.00	1.27	22.00	2,33
Jno. Jacoby	1.90	34.00	1.70	34.00	1.30	34.00	2,66
Cranford Paving Co	1.638	26.25	1.42	25.20	1.065	23.10	2,22

Name of bidder.	Sewer L.						
	21-inch (390 ft.).	Manholes (2).	18-inch (255 ft.).	Manhole (1).	12-inch (160 ft.).	Manhole (1).	Tot
Wormley & Bolden	$1.70	$23.00	$1.63	$23.00	$1.15	$23.00	$1,38
Jno. P. Larguey	1.50	25.00	1.60	30.00	1.10	25.00	1,28
E. G. Gummel	1.35	28.00	1.46	31.00	.87	27.00	1,12
Jas. McCandlish	1.40	25.00	1.37	30.00	.87	25.00	1,12
Jas. Frawley	1.465	22.00	1.49	24.00	.99	22.00	1,15
Jno. Jacoby	1.70	35.00	1.70	35.00	1.00	35.00	1,37
Cranford Paving Co	1.42	25.20	1.48	31.50	1.08	25.20	1,13

Name of bidder.	Sewer M.		
	15-inch (310 feet).	Manholes (2).	Total
Wormley & Bolden	$1.60	$23.00	$5
Jno. P. Larguey	1.30	25.00	4
E. G. Gummel	1.12	28.00	4
Jas. McCandlish	1.40	30.00	4
Jno. Jacoby	1.50	35.00	5

Name of bidder.	Sewer N.						
	18-inch (425 ft.).	Manholes (2).	15-inch (120 ft.).	Manhole (1).	12-inch (990 ft.).	Manholes (4).	Tot
Wormley & Bolden	$1.90	$29.00	$1.87	$29.00	$1.84	$29.00	$3,09
Jno. P. Larguey	1.45	27.00	1.15	25.00	.95	25.00	1,87
E. G. Gummel	1.35	28.00	1.06	26.00	1.08	30.00	1,92
Jas McCandlish	1.37	25.00	1.25	25.00	.95	27.00	1,85
Jno. Jacoby	1.75	34.00	1.50	34.00	.90	32.00	2,04

Name of bidder.	Sewer O.				
	18-inch (57 ft.).	Manhole (1).	15-inch (510 ft.).	Manholes (3).	Tot
Wormley & Bolden	$1.90	$23.00	$1.87	$23.00	$1,15
Jno. P. Larguey	1.45	25.00	1.15	25.00	7
E. G Gummel	1.08	26.00	.96	26.00	6
Jas. McCandlish	1.24	25.00	1.07	25 00	7
Jas Frawley	1.295	21.00	1.195	21 00	6
Jno. Jacoby	1.60	35.00	1.35	35.00	9
Cranford Paving Co	1.19	22.00	1 07	22 25	6

Proposals for sewers, opened May 22, 1897.

Name of bidder.	Sewer P.										
	15-inch (55 feet).	Manholes (2).	18-inch (150 feet).	Manhole (1).	21-inch (575 feet).	Manholes (4).	18-inch (485 feet).	Manholes (3).	24-inch (935 feet).	Manholes (5).	Total.
rmley & Bolden	$1.65	$25.00	$1.70	$25.00	$1.75	$25.00	$1.70	$25.00	$1.90	$25.00	$4,328.00
n P. Larguey	1.15	25.00	1.50	25.00	1.70	25.00	1.50	25.00	2.15	30.00	4,403.50
. Gummel	1.11	26.00	1.38	27.00	1.57	28.00	1.38	27.00	1.96	30.00	4,094.70
McCandlish	1.47	35.00	1.67	35.00	1.93	35.00	1.67	35.00	2.40	35.00	5,020.05
. Jacoby	1.30	30.00	1.60	30.00	1.80	35.00	1.60	30.00	2.00	35.00	4,487.50

Name of bidder.	Sewer Q.			Sewer R.		
	15-inch (355 feet).	Manholes (2).	Total.	18-inch (380 feet).	Manholes (2).	Total.
rmley & Bolden	$1.95	$29.00	$750.25	$2.00	$29.00	$818.00
. Gummel	1.11	25.00	444.05	1.46	28.00	610.80
McCandlish	.99	25.00	401.45	1.47	30.00	618.60
. Jacoby	1.50	30.00	592.50	1.80	35.00	754.00

Name of bidder.	Sewer S.			Sewer T.				
	21-inch (140 feet).	Manhole (1).	Total.	21-inch (580 feet).	Manholes (2).	24-inch (70 feet).	Manhole (1).	Total.
rmley & Bolden	$2.00	$29.00	$309.00	$2.00	$29.00	$2.10	$29.00	$1,394.00
. Gummel	1.57	28.00	247.80	1.36	25.00	1.52	25.00	970.20
McCandlish	1.87	27.00	288.80	1.87	25.00	2.40	25.00	1,327.60
. Jacoby	2.00	35.00	315.00	1.40	30.00	1.60	30.00	1,014.00

Name of bidder.	Sewer W.					Sewer V.		
	18-inch (260 ft.)	Manhole (1).	21-inch (260 ft.)	Manhole (1).	Total.	15-inch (360 ft.)	Manhole (1).	Total.
rmley & Bolden	$2.00	$29.00	$2.05	$29.00	$1,111.00	$1.30	$23.00	$530.00
n P. Larguey	1.75	30.00	2.20	36.00	1,093.00	1.25	25.00	512.50
. Gummel	1.48	33.00	1.80	39.00	924.80	1.02	28.00	425.80
McCandlish	1.57	35.00	1.77	35.00	968.40	1.23	25.00	504.70
Frawley						1.23	22.00	501.70
Jacoby	2.00	40.00	1.90	35.00	1,089.00	1.60	35.00	659.00
nford Paving Co	1.539	33.60	1.80	38.22	939.96			

Name of bidder.	Sewer W.			Sewer X.		
	21-inch (640 ft.).	Manholes (2).	Total.	21-inch (375 ft.).	Manhole.	Total.
rmley & Bolden	$1.40	$23.00	$942.00	$1.50	$23.00	$808.50
n P. Larguey	1.55	25.00	1,042.00	1.60	25.00	650.00
. Gummel	1.34	28.00	913.60	1.40	28.00	581.00
McCandlish	1.67	25.00	1,118.80	1.72	30.00	705.00
Frawley	1.57	24.00	1,052.80	1.67	23.00	672.25
Jacoby	1.75	35.00	1,190.00	1.90	35.00	782.50
nford Paving Co	1.42	25.20	959.20	1.49	27.30	613.35

Proposals for construction of sewers, opened June 16, 1897. (Sewer F.)

Name of bidder.	30-inch diameter. (500 feet).	Manhole (1).	24-inch diameter. (360 feet).	Manhole (2).	Total.
H. H. Allen	$4.84	$150.00	$169.00	$30.00	$3,238.40
McCandlish	4.96	196.00	177.00	25.00	3,393.20

Proposals for electric arc lighting, opened April 30, 1897.

Name of bidder.	West of Rock Creek.		East of Rock Creek.		Remarks.
	Existing lamps.	Additional lamps.	Existing lamps.	Additional lamps.	
Potomac Electric Power Co.	$0.25	$0.25	$0.25	$0.25	Price per lamp per night.
United States Electric Lighting Co.	.....	.....	91.25	91.25	Price per lamp per annum, equivalent to 25 cents per lamp per night.
Do	25.00	20.00	.....	.....	Price per lamp per annum.
Do	.....	.....	25.00	.....	North side Pennsylvania avenue, between Madison place and Jefferson place, 4 lamps.
Do	.....	.....	25.00	.....	North side New York avenue, between Thirteenth and Fourteenth streets.
Do	.....	.....	20.00	.....	2 lamps at intersection of Thirteenth and H streets.
Do	.....	.....	20.00	.....	Other lamps along line of Potomac Electric Power Co.'s conduits, subject to right to use ducts of said company. (See item E, et seq., in letter.)

Proposals for street lighting, opened April 30, 1897.

Name of bidder.	Naphtha.		Gas, west of Rock Creek.		Gas, east of Rock Creek.		Incandescent.	
	1,000.	Each additional 1,000.	400.	Each additional 400.	4,000.	Each additional 4,000.	50.	Each additional 50.
Washington Lighting Co. *a*	$15.80	$15.80	.....	.....	.....	.....	.....	.....
Pennsylvania Globe Gaslight Co. *b*	20.00	20.00	.....	.....	.....	.....	.....	.....
Do. *c*	30.00	30.00	.....	.....	.....	.....	.....	.....
Georgetown Gaslight Co	.....	.....	$20.00	$20.00	.....	.....	.....	.....
Washington Gaslight Co	.....	.....	.....	.....	$20.00	$20.00	.....	.....
Potomac Electric Power Co	.....	.....	.....	.....	.....	.....	$20.00	$20.00

a Using Schauer burner, 15-candlepower.
b Using Wellington plate burner, 20-candlepower.
c Using Welsbach burner, 60-candlepower.

Schedule of proposals for lamp-posts, opened April 7, 1897.

Name of bidder.	400 lamp-posts.
R. H. Hood, Washington, D. C	$6.97
M. J. Drummond, New York, N. Y	6.20
Camden Iron Works, Philadelphia, Pa	4.95
Chamblin & Scott, Richmond, Va	6.20
Midvale Foundry Co., Allentown, Pa	4.94
Charles White & Co., Washington, D. C	8.45
George White's Sons, Washington, D. C	5.80

ls for furnishing terra-cotta sewer pipe, vitrified invert blocks, and vitrified invert bricks, opened August 15, 1896.

Name and address of bidder.	Terra-cotta sewer pipe (per linear foot).							
	6-inch (1,800 feet).	8-inch (2,400 feet).	10-inch (11,000 feet).	12-inch (2,400 feet).	15-inch (9,000 feet).	18-inch (8,100 feet.)	21-inch (4,500 feet).	24-inch (2,700 feet).
'erra Cotta Co., Washington, D. C. *a*	$0.06	$0.08	$0.11	$0.13	$0.19	$0.26	$0.38	$0.50
lle & Sons, Washington, D. C. *b*	.05	.07	.12	*b* .12½	*b* .18½	*b* .25½	*b* .37½	.49
nond, Takoma, D. C	*a* .05	.07½	.....	.14	.....	.....	.....	.....
Bros. & Co., Akron, Ohio	.04½	.07	*a* .10	.13	.19	.26	*a* .35	.50
ewer Pipe Co., Barberton, Ohio	.05½	.08½	.12	.16½	.24½	.33½	.50	..64½
echt et al., Wheeling, W. Va	.05½	.07½	.....	.....	.....	.....	.....	.....

d address of bidder.	Terra-cotta Y branches (each).							6-inch terra-cotta bends (500), each.	Vitrified invert blocks (7,500), per linear foot.	Vitrified invert bricks (500,000), per M.
	8 by 6 inches (125).	10 by 6 inches (600).	12 by 6 inches (620).	15 by 6 inches (200).	18 by 6 inches (80).	21 by 6 inches (45).	24 by 6 inches (25).			
Terra Cotta Co., rton, D. C. *a*	$0.32	$0.45	*a* $0.58	*a* $0.85	*a* $1.15	*a* $1.70	$2.20	$0.20	.....	.....
'lle & Sons., Wash-). C. *b*	.31	.....	.....	.....	.....	.....	.....	.17	.....	.....
mond, Takoma, D. C.	.30	.....	.....	.....	.....	.....	.....	*a* .15	*a* $0.39½	.....
ire Brick Co., Key- nction, Pa. *a*	.....	.....	.....	.....	.....	.....	.....	.....	.....	$16.20
	.....	.....	.....	.....	.....	.....	.....	.....	.....	15.90
	.....	.....	.....	.....	.....	.....	.....	.....	.....	*a* 15.50
Bros. & Co., Akron,	*a* .30	.45	.60	.87	1.18	*a* .57	2.26	.17	.43	.....
, Porter & Co., New land, W. Va	.....	.....	.....	.....	.....	.....	.....	.....	.50	15.56
Johnsonburg, Pa	.....	.....	.....	.....	.....	.....	.....	.....	.....	*c* 8.00
ewer Pipe Co., Bar- Ohio	.34½	.58	.75	1.10	1.50	2.20	3.00	.21	.....	.....
echt et al., Wheeling,	.26½	.....	.....	.....	.....	.....	.....	.....	.....	16.50
on & Co., Frederick,	.....	.....	.....	.....	.....	.....	.....	.....	.....	*d* 17.00

The items awarded to Robinson Bros. & Co. were refused by them and reawarded as
'o Potomac Terra Cotta Company, items 1, 2, part of 3, and 4; to T. Somerville & Sons,
m 3.
epted.
epted for 8,000 feet of 12-inch, 4,000 feet of 15-inch, 2,000 feet of 18-inch, and 2,000 feet of

al. No deposit.
lelivered in such quantities as designated.

ls for furnishing terra-cotta sewer pipe, vitrified invert block, and vitrified invert brick, opened May 29, 1897.

Name of bidder.	Terra-cotta sewer pipe (per foot).							
	24-inch (2,000 feet).		21-inch (21,000 feet).		18-inch (18,000 feet).		15-inch (20,100 feet).	
	Quantity.	Price.	Quantity.	Price.	Quantity.	Price.	Quantity.	Price.
ufacturing Co	.....	$0.48	.....	$0.34½	.....	$0.25½	.....	$0.18½
ewer Pipe Co	.....	.49	.....	.38	.....	.25½	.....	.19
Terra Cotta Co	2,000	.50	1,000	.35	.....	.24½	.....	.18
e & Sons	5,000	.49	4,000	.35	8,000	.24	10,000	.17
echt	.....	.56	.....	.43	.....	.28½	.....	.22½
Bros. & Co	.....	.55	.....	.46	.....	.29	.....	.21

Bids include entire amount except where otherwise specified.

Proposals for furnishing terra-cotta sewer pipe, vitrified invert block, and vitrified invert brick, opened May 29, 1897—Continued.

Name of bidder.	Terra-cotta sewer pipe (per foot).							
	12-inch (45,000 feet).		10-inch (13,200 feet).	8-inch (2,400 feet).	6-inch (1,80 feet).			
	Quantity.	Price.	Price.	Price.	Quantity.	Price		
Mack Manufacturing Co		$0.128	$0.099	$0.069		$0.(		
Angus Lamond	10,000	.13		.07½	1,800	.(		
Central Sewer Pipe Co		.13	.10	.07		.(		
Potomac Terra Cotta Co		.12	.11	.07		.(		
Somerville & Sons	10,000	.11½		.06½		.(		
John Robrecht		.15	.12	.08½		.(		
Robinson Bros. & Co		.14	.12½	.07		.(		

Name of bidder.	Terra-cotta Y-branches (each).							
	24 by 6 inches (25).	21 by 6 inches (60).	18 by 6 inches (100).		15 by 6 inches (200).		12 by 6 inch (620).	
	Price.	Price.	Quantity.	Price.	Quantity.	Price.	Quantity.	Pric
Mack Manufacturing Co	$1.823	$1.50		$0.993		$0.743		$0.
Central Sewer Pipe Co	2.19	1.68		1.15		.85		
Potomac Terra Cotta Co	2.25	1.75		1.15		.85		
Somerville & Sons	2.19	1.68	100	1.12	200	.83	300	
John Robrecht	2.50	1.93		1.31		.96		
Robinson Bros. & Co	2.40	2.10		1.30		.95		

Name of bidder.	Terra-cotta Y-branches (each).		Bends, 6-inch (600).	Vitrified invert—			
	10 by 6 inches (600).	8 by 6 inches (125).		Blocks (6,600).		Brick (540,000	
	Price.	Price.	Price.	Quantity.	Price.	Quantity.	Pric
Frederick Brick Works						250,000	a $11
Clearfield Clay Working Co						540,000	b 13
Toronto Fire Clay Co						540,000	c 15
Savage Fire Brick Co						540,000	d 15
J. A. Hayden						540,000	e 16
Mack Manufacturing Co	$0.4202	$0.2798	$0.134	6,600	$0.38	540,000	f 14
Angus Lamond		.30	.15	6,600	.39½		
Central Sewer Pipe Co	.44	.30	.16				
Potomac Terra Cotta Co	.50	.30	.16				
Somerville & Sons		.29	.14				
McMahan Porter & Co. g				6,000	.45	540,000	h 14
John Robrecht	.49½	.35	.19½	6,600	.08½		
Robinson Bros. & Co	.49	.34	.18				

NOTE.—Bids include entire amount except where otherwise specified.

a Number of brick to square yard, 68.3; cost per square yard, 75.13 cents.
b Number of brick to square yard, 59; cost per square yard, 76.7 cents.
c Number of brick to square yard, 61.3; cost per square yard, 96.76 cents.
d Number of brick to square yard, 57.6; cost per square yard, 89.28 cents.
e Vitrified wire blocks, 9 by 4 by 3 inches, at 18.83 cents per sample; brick, 57.1; re-pressed, 14. cents. No sample blocks submitted. (See letter; see note.)
f Mack's brick: Standard, 61.8 to square yard; cost per square yard, 86.52 cents; re-press 66.7 to square yard; cost per square yard, 9[illegible].71 cents.
g No sample block submitted equal to that heretofore supplied.
h McMahan Porter's brick, 58.1 to square yard; cost per square yard, 84.24 cents.

Proposals for furnishing vitrified paving blocks, opened September 10, 1896.

Name and address of bidder.	Number of blocks, ordinary.	Number of blocks to yard on edge (average).	Price per M.	Deliveries to commence—
field Clay Working Co., Clearfield, Pa	900,000	59	$14.75	Dec. 1, 1896
Higley & Co., Canton, Ohio	900,000	43	23.00	Oct. 1, 1896
ahan, Porter & Co., New Cumberland, W. Va. *a*	900,000	43	20.45	Within 30 days.
	b 900,000	57	15.80	
M. Mack, Philadelphia, Pa. *a*	Entire order.	40	21.25	Oct. 1, 1896
nia Paving Brick Co., Lynchburg, Va	500,000	49	19.50	When ordered.
England Steam Brick Co., Providence, R. I.	200,000	70	15.00	Immediately.

Name and address of bidder.	To be prosecuted at rate of (per month)—	To be completed on or before—	Price to apply to smaller number, not less than—
field Clay Working Co., Clearfield, Pa	300,000	Apr. 1, 1897	300,000
Higley & Co., Canton, Ohio	3 to 5 cars per day	Nov. 15, 1896	200,000
ahan, Porter & Co., New Cumberland, W. Va. *a*	10,000 per day	Feb. 1, 1897	300,000
	15,000 per day	do	500,000
M. Mack, Philadelphia, Pa. *a*	300,000	Jan. 1, 1896	Any quantity.
nia Paving Brick Co., Lynchburg, Va	15,000 per day		200,000
England Steam Brick Co., Providence, R. I.		Oct. 15, 1896	100,000

Name and address of bidder.	Number of blocks (repressed).	Number of blocks to yard on edge (average).	Price per M.	Deliveries to commence—
field Clay Working Co., Clearfield, Pa	900,000	58	$15.00	Dec. 1, 1896
Higley & Co., Canton, Ohio	900,000	43	24.00	Oct. 1, 1896
ge Fire Brick Co., Keystone Junction, Pa. *a*	1,000,000	48	20.00	30 days after order.
ahan, Porter & Co., New Cumberland, W. Va. *a*	900,000	43	20.85	Within 30 days.
	900,000	55	16.80	
M. Mack, Philadelphia, Pa. *a*	Entire order.	43	21.75	At once.
nia Paving Brick Co., Lynchburg, Va	500,000	49	19.50	do
England Steam Brick Co., Providence, R. I.				

Name and address of bidder.	To be prosecuted at rate of (per month)—	To be completed on or before—	Price to apply to smaller number, not less than—
field Clay Working Co., Clearfield, Pa	200,000 to 400,000	Apr. 1, 1897	300,000
Higley & Co., Canton, Ohio	3 to 5 cars per day	Nov. 15, 1896	200,000
ge Fire Brick Co., Keystone Junction, Pa. *a*	250,000	Mar. 1, 1897	250,000
ahan, Porter & Co., New Cumberland, W. Va. *a*	10,000 per day	Feb. 1, 1897	300,000
	15,000 per day	do	500,000
M. Mack, Philadelphia, Pa. *a*	300,000	Jan. 1, 1896	Any quantity.
nia Paving Brick Co., Lynchburg, Va	15,000 per day	Within 60 days.	100,000
England Steam Brick Co., Providence, R. I.			

a Bids accepted for 300,000 blocks each.

b Paving brick.

Proposals for furnishing vitrified paving blocks or bricks, opened May 29, 1897.

Name of bidder.	Vitrified paving blocks.					Bid applies to order for not less than—
	Number to square yard.	Ordinary, price.	Cost, square yard.	Number to square yard.	Repressed, price.	Cost, square yard.	
Clearfield Clay Working Co. *a*	50	$15.00	$0.75	50	$15.60	$0.78	500,000
McMahan, Porter & Co	42	19.00	.798	42½	20.00	.85333	(*b*)
John M. Mack *c*	40	19.00	.781	43	20.00	.86	
Savage Fire Brick Co				48	20.00	.96	400,000
J. A. Hayden	48	18.83	.90384				
Camden Clay Co				46	18.60	.8556	5,000
Virginia Paving Brick Co. *d*	54	15.50	.837	54	15.50	.837	

Name of bidder.	Vitrified paving bricks.					Bid applies to order for not less than—
	Number to square yard.	Ordinary, price.	Cost, square yard.	Number to square yard.	Repressed, price.	Cost, square yard.	
Clearfield Clay Working Co. *a*	58	$13.00	$0.754	58	$13.50	$0.783	800,000
McMahan, Porter & Co	55½	14.50	.807157	56	15.60	.8736	(*b*)
John M. Mack *c*	58	14.00	.812	60	14.50	.87	
Savage Fire Brick Co				56	16.25	.91	400,000
J. A. Hayden	57.6	16.13	.929088				
Toronto Fire Clay Co	60	15.85	.951				10,000
Thompson C. Gill & Co	60	18.74	1.1244				100,000
Francis & Roach *e*				60	15.44	.9264	100,000
John Rabrecht *f*	59	15.50	.9145				

a Either fire clay or shale.
b Any quantity.
c Full contract only; commence in ten days.
d 500,000 only.
e 1,000,000 only.
f Bid informal; received May 29, 5 p. m.

Proposals for furnishing terra-cotta pipe, opened March 13, 1897.

Name and address of bidder.	At District property yard.				At Takoma, D. C.			
	12-inch.	18-inch.	21-inch.	24-inch.	12-inch.	18-inch.	21-inch.	24-inch.
	Cents.	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*
Thomas Somerville & Sons, Washington, D. C	14	28	48	56½	14	28	48	56½
Potomac Terra-Cotta Co., Washington, D. C	14½	29	50	58	14½	29	50	58
Angus Lamond, Takoma, D. C. *a*	13½				13½			

a Check not certified; bid protested by Somerville & Sons.

Proposals for furnishing sand and pebbles, opened July 6, 1896.

Name and address of bidder.	Paving and concrete sand (8,000 cubic yards), per cubic yard.	Building sand (500 cubic yards), per cubic yard.	Screened pebbles (4,500 cubic yards), per cubic yard.
	Cents.	*Cents.*	*Cents.*
John B. Lord, Washington, D. C	*a* 45	70	65
Columbia National Land Dredging Co., Washington, D. C	55	*a* 65	*a* 59
W. A. Richards, Washington, D. C	47	59	69

a Bid accepted.

Proposals for furnishing cement, opened July 18, 1896.

and address of bidder.	Number of barrels.	Natural hydraulic cement (price per barrel).					Portland cement, at District cement house (price per barrel).
		At District cement house.			At bidder's warehouse.		
		In barrels.	In canvas bags.	In paper bags.	In barrels.	In canvas bags.	
I. McGill, Washington,	{10,000 to 16,000}	$1.06	$0.86	.....	*b* $1.00	$0.80	*a* $2.09
ement Co., New York	.....	.....	.....	.....	.....	.....	2.11½
ceville Cement Co., ork City *a*	27,000	.91	.71	$0.75½	.....	.....	.....
, New York City	.....	.....	.....	.....	.....	.....	*c* 2.41
ement Co., Allentown,	27,000	1.40	1.50	1.27½	.....	.....	2.65
Lime and Coal Co., ngton, D. C.	27,000	.97½	.72½	.....	*d* .98½	.73½	2.35
. M. Waters, Washing- C.	15,000	1.06½	.86½	.....	*e* .99½	.79½	.....

Bid accepted.
Bidders' warehouse, Third and R streets NE. and Baltimore and Ohio Railroad.
Bidders' warehouse, Twenty-sixth and D streets NW.
Bidders' warehouse, North Capitol and E streets NE.
Bidders' warehouse, 1045 Thirty-second street NW.

edule of proposals for furnishing paving bricks, opened August 15, 1896.

[Prices per 1,000.]

me and address of bidder.	Quantities.	Average number per square yard.	Delivery per month.	In city and county of Washington, upon or south of Florida and Bennings road, and between Eastern Branch and Rock Creek.	In city of Georgetown.
ller, Washington, D. C. *a*	800,000	Sample.	400,000	*a* $9.00	*a* $9.00
Ford, Washington, D. C. *a*	400,000	36	100,000	*a* 8.00	*a* 8.50
derick Brick Works, Freder- i	500,000	.....	(*b*)	.....	.....
& Rauch, Pinegrove, Pa	200,000	40½	20,000	.....	.....

me and address of bidder.	In county of Washington, east of Eastern Branch.	In county of Washington, between Eastern Branch and Rock Creek, and not over 2 miles from Florida avenue.	In county of Washington, west of Rock Creek, within one mile of Georgetown.	At bidder's works.	At District property yards.
ller, Washington, D. C. *a*	*a* $9.00	*a* $9.50	*a* $9.50	$7.50	*a* $7.75
Ford, Washington, D. C. *a*	*a* 8.50	*a* 9.00	*a* 9.50	7.00	8.00
& Rauch, Pinegrove, Pa	.....	.....	.....	.....	17.50

l accepted for 400,000.

b 25,000 first four months, 50,000 thereafter.

Proposals for furnishing vitrified paving blocks or bricks, opened May 29, 1897.

Name of bidder.	Vitrified paving blocks.						Bid applies to order for not less than—
	Number to square yard.	Ordinary, price.	Cost, square yard.	Number to square yard.	Repressed, price.	Cost, square yard.	
Clearfield Clay Working Co. *a*	50	$15.00	$0.75	50	$15.60	$0.78	500,000
McMahan, Porter & Co	42	19.00	.798	42¾	20.00	.85333	(*b*)
John M. Mack *c*	40	19.00	.781	43	20.00	.86	
Savage Fire Brick Co				48	20.00	.96	400,000
J. A. Hayden	48	18.83	.90384				
Camden Clay Co				46	18.60	.8556	5,000
Virginia Paving Brick Co. *d*	54	15.50	.837	54	15.50	.837	

Name of bidder.	Vitrified paving bricks.						Bid applies to order for not less than—
	Number to square yard.	Ordinary, price.	Cost, square yard.	Number to square yard.	Repressed, price.	Cost, square yard.	
Clearfield Clay Working Co. *a*	58	$13.00	$0.754	58	$13.50	$0.783	800,000
McMahan, Porter & Co	55½	14.50	.807157	56	15.60	.8736	(*b*)
John M. Mack *c*	58	14.00	.812	60	14.50	.87	
Savage Fire Brick Co				56	16.25	.91	400,000
J. A. Hayden	57 1/16	16.13	.929088				
Toronto Fire Clay Co	60	15.85	.951				10,000
Thompson C. Gill & Co	60	18.74	1.1244				100,000
Francis & Roach *e*				60	15.44	.9264	100,000
John Rabrecht *f*	59	15.50	.9145				

a Either fire clay or shale.
b Any quantity.
c Full contract only; commence in ten days.
d 500,000 only.
e 1,000,000 only.
f Bid informal; received May 29, 5 p. m.

Proposals for furnishing terra-cotta pipe, opened March 13, 1897.

Name and address of bidder.	At District property yard.				At Takoma, D. C.			
	12-inch.	18-inch.	21-inch.	24-inch.	12-inch.	18-inch.	21-inch.	24-inch.
	Cents.	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*
Thomas Somerville & Sons, Washington, D. C	14	28	48	56½	14	28	48	56½
Potomac Terra-Cotta Co., Washington, D. C	14½	29	50	58	14½	29	50	58
Angus Lamond, Takoma, D. C. *a*	13½				13½			

a Check not certified; bid protested by Somerville & Sons.

Proposals for furnishing sand and pebbles, opened July 6, 1896.

Name and address of bidder.	Paving and concrete sand (8,000 cubic yards), per cubic yard.	Building sand (500 cubic yards), per cubic yard.	Screened pebbles (4,500 cubic yards), per cubic yard.
	Cents.	*Cents.*	*Cents.*
John B. Lord, Washington, D. C	*a* 45	70	65
Columbia National Land Dredging Co., Washington, D. C	55	*a* 65	*a* 59
W. A. Richards, Washington, D. C	47	59	69

a Bid accepted.

Proposals for furnishing cement, opened July 18, 1896.

address of bidder.	Number of barrels.	Natural hydraulic cement (price per barrel).					Portland cement, at District cement house (price per barrel).
		At District cement house.			At bidder's warehouse.		
		In barrels.	In canvas bags.	In paper bags.	In barrels.	In canvas bags.	
cGill, Washington,	{10,000 to 16,000}	$1.06	$0.86	.....	*b* $1.00	$0.80	*a* $2.09
nt Co., New York		.....	.....	.....	.....	.....	2.11½
ille Cement Co., City *a*	27,000	.91	.71	$0.75½	.....	.....	.....
ew York City	.....	.....	.....	.....	.....	.....	*c* 2.41
ent Co., Allentown,	27,000	1.40	1.50	1.27½	.....	.....	2.65
ie and Coal Co., on, D. C.	27,000	.97½	.72½	.....	*d* .98½	.73½	2.35
Waters, Washing-	15,000	1.06½	.86½	.....	*e* .99½	.79½	.....

l accepted.
lders' warehouse, Third and R streets NE. and Baltimore and Ohio Railroad.
lders' warehouse, Twenty-sixth and D streets NW.
lders' warehouse, North Capitol and E streets NE.
lders' warehouse, 1045 Thirty-second street NW.

le of proposals for furnishing paving bricks, opened August 15, 1896.

[Prices per 1,000.]

and address of bidder.	Quantities.	Average number per square yard.	Delivery per month.	In city and county of Washington, upon or south of Florida and Bennings road, and between Eastern Branch and Rock Creek.	In city of Georgetown.
', Washington, D. C. *a*	800,000	Sample.	400,000	*a* $9.00	*a* $9.00
rd, Washington, D. C. *a*	400,000	36	100,000	*a* 8.00	*a* 8.50
rick Brick Works, Freder-	500,000	.....	(*b*)	.....	.....
lauch, Pinegrove, Pa	200,000	40½	20,000	.....	.....

and address of bidder.	In county of Washington, east of Eastern Branch.	In county of Washington, between Eastern Branch and Rock Creek, and not over 2 miles from Florida avenue.	In county of Washington, west of Rock Creek, within one mile of Georgetown.	At bidder's works.	At District property yards.
', Washington, D. C. *a*	*a* $9.00	*a* $9.50	*a* $9.50	$7.50	*a* $7.75
rd, Washington, D. C. *a*	*a* 8.50	*a* 9.00	*a* 9.50	7.00	8.00
lauch, Pinegrove, Pa	.....	.....	.....	.....	17.50

cepted for 400,000.

b 25,000 first four months, 50,000 thereafter.

Proposals for furnishing bricks, opened May 29, 1897.

[Price per 1000.]

SIDEWALK PAVING BRICKS.

Name of bidder.	City.	Georgetown.	County east of Eastern Branch.	County, between Eastern Branch and Rock Creek.	County west of Rock Creek and 1 mile of G street.	District property yard.	Bidder's works.	Hauling beyond limits mentioned
John Miller	$9.00	$9.50	$9.50	$9.50	$9.50	$8.25	$7.75	$0.50
Do *a*	8.00	8.50	8.50	8.50	8.50	7.25	6.75	.50
Washington Brick Co	8.93	9.23	.....	9.23	.....	.....	.....	.....
Frederick Brick Works	.....	.....	.....	.....	.....	8.90	.....	.....
Charles Ford *b*	8.00	9.00	9.00	10.00	10.50	7.75	7.25	.....

SEWER BRICKS.

Name of bidder.	City.	Georgetown.	County east of Eastern Branch.	County, between Eastern Branch and Rock Creek.	County west of Rock Creek and 1 mile of G street.	District property yard.	Bidder's works.	Hauling beyond limits mentioned
John Miller	$8.00	$8.00	$8.00	$8.00	$8.00	$6.75	$6.00	$0.50
Washington Brick Co	6.93	7.23	.....	7.23	.....	.....	.....	.....
Frederick Brick Works	.....	.....	.....	.....	.....	7.50	.....	.....

a Will accept contract for part. *b* 600,000 only.

Proposals for furnishing sewer bricks, opened July 6, 1896.

[Price per 1,000.]

Name and address of bidder.	In city and county of Washington, south of Florida avenue and Bennings road and between Eastern Branch and Rock Creek.	In city of Georgetown.	In county of Washington, east of Eastern Branch.	In county of Washington, between Eastern Branch and Rock Creek, not over 14 miles from Florida avenue.	In county of Washington, west of Rock Creek within 1 mile of Georgetown.	At bidder's works.	At District property yards.	For each additional mile beyond limits mentioned.
A. Richards Brick Co., Washington, D. C	$7.50	$8.00	$8.00	$8.20	$8.60	$6.50	.....	$0.35
W. H. West & Bro., Washington, D. C	7.48	7.73	7.98	8.23	8.23	6.13	$7.48	.75
John Miller, Washington, D. C. *a*	7.20	7.50	8.00	8.00	9.00	5.90	6.40	.50

a Bid accepted.

Proposal for furnishing asphalt paving blocks, opened September 8, 1896.

[Price per 1,000.]

Name and address of bidder. *a*	In city of Washington.	In city of Georgetown and county of Washington.	At District property yard.
Washington Asphalt Block and Tile Co., Washington, D. C	$55	$57	$53

a Bid accepted.

osals for furnishing fire and street hydrants, opened December 10, 1896.

Name and address of bidder.	100 fire hydrants (each).	50 street hydrants (each).
& Campbell Manufacturing Co., Middletown, Pa	$54.50	.....
mmond, New York City *a*	35.50	$11.60
'alve Manufacturing Co., Troy, N. Y	.....	11.60
Engineering Co., Florence, Mass	48.16	16.17

a Bid accepted.

Proposals for furnishing granite curbing, opened July 6, 1896.

Name and address of bidder.	Standard. Straight (per linear foot).	Standard. Circular (per linear foot).	Standard. Delivery to commence within—	Standard. To be prosecuted at the rate of (per month)—
			Days.	
ok, Petersburg, Va	$0.82	$0.97	30	(*a*)
k Horn, Wilmington, Del	.67	.82	60	3,400
well's Sons, Philadelphia, Pa. *b*	.69	.79	45	5,000
aldo Granite Works, Frankfort, Me	.74	1.00	40	3,000
ros., Sullivan, Me	.70	.93	40	4,000
Veller, Granite, Md	.70 .72 .73	1.05 1.07 1.09	10	2,000
ones & Co., Lithonia, Ga	.70½	1.02½	15	3,000
'erguson, New York City	.71	1.05	35	5,000
ine Granite Co., Wilmington, Del	.82	1.09	20	1,500
isdell, Franklin, Me	.70	.85	60	(*c*)
Condon, South Brooksville, Me. *d*	*e* .53	*e* .82	60	2,000
rolina Granite Co., Winnsboro, S. C	.75	1.10	40	5,000
ry Granite Co., Greensboro, N. C	.69	1.04	30	5,000
s Bros., Salisbury, N. C	.77	1.10	20	2,000

Name and address of bidder.	Special. Straight 8-inch (per linear foot).	Special. Circular 8-inch (per linear foot).	Special. Delivery to commence within—	Special. To be prosecuted at the rate of (per month)—
			Days.	
ok, Petersburg, Va	$0.67	$0.82	30	(*f*)
k Horn, Wilmington, Del	*g* .52½	*c* .67½	60	2,500
well's Sons, Philadelphia, Pa. *b*	.67	.79	45	3,000
aldo Granite Works, Frankfort, Me	.65	.90	40	2,500
ros., Sullivan, Me	.60	.80	40	4,000
Veller, Granite, Md	.64½ .66½ .67½	.85	10	2,000
ones & Co., Lithonia, Ga	.62½	.82 .83 .84	15	2,500
'erguson, New York City	.62	.91½	35	5,000
ine Granite Co., Wilmington, Del	.72	.94	20	1,500
isdell, Franklin, Me	.55	.96	60	(*c*)
Condon, South Brooksville, Me. *d*	.61	.70	60	2,000
rolina Granite Co., Winnsboro, S. C	.75	.82	40	5,000
ry Granite Co., Greensboro, N. C	.63½	1.10	30	5,000
s Bros., Salisbury, N. C	.65	.95½	20	1,500

a 1,000 feet first two months, 2,000 feet thereafter.
b Bid based on contract being awarded as a whole.
c Complete in 5 months.
d Ship one-half this fall; balance in spring of 1897.
e Bid accepted, but contract refused; readvertised.
f 1,000 feet first two months, 1,500 feet thereafter.
g Bid accepted.

Proposals for furnishing fire and street hydrants, etc.—Continued.

Name and address of bidder.	Special.				Quantity to be furnished, linear feet.					
	Straight, 6-inch (per linear foot).	Circular, 6 inch (per linear foot).	Delivery to commence within—	To be prosecuted at the rate of (per month)—	Straight, standard.	Circular, standard.	Straight, 8-inch.	Circular, 8-inch.	Straight, 6-inch.	Circular, 6-inch.
			Days.							
Asa B. Cook, Petersburg, Va	$0.60	$0.75	30	(a)	17,000	(b)	14,000	(b)	14,000	(b)
J. Merrick Horn, Wilmington, Del	c.50	c.65	60	2,800	17,000	850	14,000	700	14,000	700
Jno. Maxwell's Sons, Philadelphia, Pa. d	.63	.73	45	(d)	17,000	(d)	14,000	(d)	14,000	(d)
Mount Waldo Granite Works, Frankfort, Me	.59	.80	40	2,500	10,000	(d)	5,000	(d)	5,000	(d)
Dunbar Bros., Sullivan, Me	.59	.79	40	4,000	17,000	850	14,000	700	14,000	700
Wm. F. Weller, Granite, Md	.53½ .54½ .56½	.70 .72 .74	10	2,000 or more	1,000 1,000 2,000	1,000 1,000 1,000	1,000 1,000 2,000	1,000 1,000 1,000	1,000 1,000 1,000	1,000 1,000 1,000
Francis Jones & Co., Lithonia, Ga	.60½	.89½	15	2,500	17,000	1,000	14,000	700	14,000	700
Chas. S. Ferguson, New York City	.61½	.92½	35	5,000	17,000	850	14,000	700	14,000	700
Brandywine Granite Co., Wilmington, Del	.72	.96	20	1,500	17,000	850	14,000	700	14,000	700
W. B. Blaisdell, Franklin, Me	.50	.60	60	(e)	17,000	850	14,000	700	(d)	(d)
Chatto & Condon, South Brooksville, Me. f	.59	.82	60	2,000	13,200	700	16,150	850	16,150	850
South Carolina Granite Co., Winnsboro, S. C	.65	1.00	40	5,000	17,000	.....	14,000	.....	.....	.....
Mount Airy Granite Co., Greensboro, N. C	.53½	.80½	30	5,000	17,000	(d)	14,000	(d)	14,000	(d)
McCauless Bros., Salisbury, N. C	.55	.70	20	(d)	17,000	(d)	14,000	(d)	(d)	(d)

a 1,000 feet first two months, 1,500 feet thereafter.
b Proportional amount.
c Bid accepted.
d As required.
e Complete in five months.
f Ship one-half this fall; balance in spring of 1897.

Proposals for furnishing standard granite curbing, opened August 18, 1896.

Name and address of bidder.	Straight.		Circular.		Delivery to be commenced within—	Delivery to be prosecuted at rate of (per month)—
	Quantity.	Price.	Quantity.	Price.		
					Days.	*Feet.*
Dunbar Bros., Sullivan, Me. a	16,000	$0.65	1,000	$0.82	40	4,000
Mt. Airy Granite Co., Greensboro, N. C.	8,500 8,500	.68½ .65½	(b)	.82	82	2,500
Francis Jones & Co., Atlanta, Ga	16,150	.66½	850	.87½	15	6,000
A. B. Cook, Petersburg, Va	17,000	.80	850	.96	30	2,000
John Maxwell's Sons, Philadelphia, Pa	17,000	.68	.....	.74	45	3,000
Chas. S. Ferguson, New York City	17,000	.70	4,500	1.05	60	4,000
J. Merrick Horn, Wilmington, Del	17,000	.67	850	.82	60	3,400
Geo. Peirce, Frankfort, Me. c	5,000 5,000	.79 .67	1,000	1.19	60	(d)

a Bid accepted. *b* Amount required. *c* 1,200 to 1,500 feet 5 by 20 curb at once. *d* In 60 days.

Proposals for furnishing granite curbing, opened February 15, 1897.

Name and address of bidder.	Straight standard (5,300 linear feet).			Straight 8-inch special (6,500 linear feet).		
	Per linear foot.	Delivery to commence within—	To be prosecuted at rate of (per month)—	Per linear foot.	Delivery to commence within—	To be prosecuted at rate of (per month)—
		Days.	*Feet.*		*Days.*	*Feet.*
Canless Bros., Salisbury, N. C.	$0.72	20	1,000	$0.57	20	1,000
w Brunswick Red Granite Co., Calais, Me. *a*	1.16	30	2,400	.99	30	2,400
. Doby, Lithonia, Ga.	.66	15	*b* 1,000	.55	15	(*c*)
L. Kluttz, Salisbury, N. C.	.74	20	*b* 500	.65	20	*b* 500
. Manning & Co., Washington, D. C.	.86	30	(*d*)	.76	30	*b* 1,000
n P. Gordon, Franklin, Me.	*e* .645	90	3,000	.545	90	3,000
nbar Bros., Sullivan, Me.	.72	120	1,800	.595	120	2,200
ndywine Granite Co., Wilmington, Del.	.75	30	1,500	.60	30	3,000
oper, Havey & Co., Sullivan, Me.	.68	90	2,000	.53	90	2,000
. Peirce, Frankfort, Me.	.73	70	2,500	.59	70	3,000
unt Airy Granite Co., Greensboro, N. C.	.68	15	3,000	.62	15	3,000
nnecticut State Granite Co., New York City *a*	.64	30	(*d*)	.52	.....	.....
D. Jenkins, Lithonia, Ga.	.675	15	*f* 200	.63	15	*f* 200
B. Cook, Petersburg, Va.	*g* .78	30	1,325	*g* .66	30	1,525
Merrick Horn, Wilmington, Del.	.67	(*h*)	.....	*e* .515	(*i*)	.....
ancis Jones, Atlanta, Ga.	.675	20	2,700	.57½	20	2,500

a Informal; no check or deposit.
b Per week.
c 500 to 1,000 per week.
d As required.
e Bid accepted.
f Per day.
g 73 cents and 63 cents if awarded whole.
h Complete by June 20, 1897.
i Complete by May 20, 1897.

Proposals for furnishing granite curbing, opened May 29, 1897.

Name of bidder.	Quantity.	6 by 20 inch curbing.		Delivery to commence—	Rate of prosecution.
		Straight.	Circular.		
	Feet.			*Days.*	
C. Doby *a*	38,000	$0.58½	$0.72½	20	8,000 to 10,000 feet per month.
ohn P. Gordon	15,000	.65½	.82	60	3,000 feet per month.
randywine Granite Co.	38,000	.72	.....	20	2,000 feet per month.
. W. Walker	38,000	.61	.90	35	2,500 feet per month.
rancis Jones	36,100	.62½	.72½	15	5,000 feet per month.
unbar Bros. *b*	38,000	.72	.82	60	3,000 feet per month.
. B. Cook	10,000	.66	.92	30	10 per cent per month.
Do	15,000	.69	.....	30	Do.
Do	20,000	.72	.....	30	Do.
lount Airy Granite Co.	19,000	.59	.76	30	4,000 feet per month.
Do	19,000	.61½	.....	30	Do.
Merrick Horn	10,000	.64	.87	30	Sept. 1, 1897.
Do	10,000	.65	.....	30	Nov. 1, 1897.
Do	18,000	.67	.....	30	May 20, 1898.
eorge Pierce	5,000	.69	1.12	60	5,000 feet per month.
Do	33,000	.95	.....	60	Do.
mping, Kluttz & Co.	.....	.....	.....	.....	

a Bid reduced from 61 to 58½ cents by telegraph.
b Will furnish 6,000 feet per month of sizes ordered. Bid for 8 inches is predicated upon acceptce of bid for 6 inches.

Proposals for grading certain streets, opened November 25, 1896.

Name and address of bidder.	Pierce and High streets, Anacostia (6,000 cubic yards).	Erie street, Meridian Hill (12,000 cubic yards).
	Cents.	Cents.
G. B. Mullin, Washington, D. C	a 14	
Richd. Seek, Washington, D. C		a 19½
And. Gleeson, Washington, D. C	14½	29
H. L. Welles, Washington, D. C	17½	
E. G. Gummel, Washington, D. C		27
Albert Gleason & Co., Washington, D. C		34½

a Bid accepted.

Proposals for constructing the Fifteenth street and F street portions of the F street and Easbys Point intercepting sewer, opened August 1, 1896.

Name and address of bidder.	For excavation above sewer subgrade, including excavation for manholes, etc. (25,600) cubic yards), per cubic yard.	For brick masonry laid in natural cement mortar, including plastering, etc. (1,644 cubic yards), per cubic yard.	For vitrified brick masonry in Portland cement mortar, including forms, etc. (339 cubic yards), per cubic yard.	For concrete masonry in place, natural cement mortar, etc. (1,080 cubic yards), per cubic yard.	Total cost.
B. J. Coyle, Washington, D. C	$0.88	$10.90	$22.00	$7.80	$56,239.60
Lyons Bros., Washington, D. C	.95	9.50	18.90	6.50	a 53,365.10
John Jacoby, Wilmington, Del	1.50	10.00	20.00	8.00	70,260.00

a Bid accepted.

Proposals for grading, regulating, and macadamizing streets, opened August 25, 1896.

Name and address of bidder.	M street NE., between Second and Fourth streets.		Kentucky avenue, between Lincoln Square and B street.			
	Grading, per cubic yard.	Removing and hauling cobble, per square yard.	Grading, per cubic yard.	Setting curb, per linear foot.	Paving cobble gutters and laying flag crossings, per square yard.	Gravel roadway, per square yard.
	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
M. F. Talty, Washington, D. C	a 16	a 10	25	15	25	16
C. H. Eslin, Washington, D. C	18	8	23	17	24	16
W. E. Chaffee, Washington, D. C	37	12	23	16	36	26
Jas. Frawley, Washington, D. C	22	9	a 16½	a 15	a 17	a 13
And. Gleeson, Washington, D. C	20	10	29	15	20	15
Washington Asphalt Block and Tile Company, Washington, D.C.	18	12	20	15	28	14½
R. Seek, Washington, D. C	17½	10				
Gaskins & Strang, Washington, D. C			21	22	23	21

a Bid accepted.

roposals for grading, regulating, and macadamizing streets, etc.—Continued.

me and address of bidder.	Thirteenth street SE., between East Capitol and D streets.				Florida avenue, between Ninth and M streets NE.			
	Grading, per cubic yard.	Setting curb, per linear foot.	Paving cobble gutters and laying flag crossings, per square yard.	Laying gravel roadway, per square yard.	Grading, per cubic yard.	Setting curb, per linear foot.	Paving cobble gutters and laying crossings, per square yard.	Laying macadam roadway, per square yard.
	Cents.	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*
Talty, Washington, D. C	25	15	25	16	20	15	25	82
Kelin, Washington, D. C	23	17	24	16	20¼	17	20	79
Chaffee, Washington, D. C.	22	16	36	24	23	17	36	81
rawley, Washington, D. C	*a* 16¼	*a* 15	*a* 17	*a* 12¼	*a* 14	*a* 19	*a* 18	*a* 77½
Gleeson, Washington, D. C	22	14	20	13¼	19	14	22	78
ington Asphalt Block and Company, Washington, D. C.	20	15	23	14¼	19	16	23	86
Killeen, Washington, D. C	.....	.....	.....	.....	20	18	25	75
ns & Strang, Washington,	25	22	23	21	.....	.....	.....	.....

a Bid accepted.

osals for improving L street between Fourth and Eighth streets SE., opened March 8, 1897.

Name and address of bidder.	Grading (per cubic yard).	Haul and set curb (per linear foot).	Lay cobble gutters (per square yard).	Lay Gravel roadway (per square yard).
	Cents.	*Cents.*	*Cents.*	*Cents.*
ington Asphalt Block and Tile Co., Washington, *a*	20	14	16	*b* 10¼
rawley, Washington, D. C	15½	15	16	14
. Edwards, Washington, D. C	25	17	19	14

a Bid accepted. *b* Complete in thirty working days.

Proposals for grading North Capitol street, opened April 9, 1897.

Name of bidder.	Price per cubic yard.	Time.
	Cents.	*Days.*
Talty	17½	150
& Gaskins	23	90
Frawley	32½	150
. Mullin	19½	118
nerty & Smith	25	120
w Gleeson	18	*a* 4

a Months.

hule of bids for paving alley of square 457 with vitrified blocks on 6-inch base, opened June 25, 1897.

Name of bidder.	Price per square yard.
	Cents.
rd Horn & Son	62.5
Washington Asphalt Block and Tile Co	67
ranford Paving Co	74.5
H. Allen	87

Proposals for grading certain streets, opened November 25, 1896.

Name and address of bidder.	Pierce and High streets, Anacostia (6,000 cubic yards).	Erie street, Meridian Hill (12,000 cubic yards).
	Cents.	*Cents.*
G. B. Mullin, Washington, D. C	a 14	.....
Richd. Seek, Washington, D. C	.....	a 19½
And. Gleeson, Washington, D. C	14½	29
H. L. Welles, Washington, D. C	17½	.....
E. G. Gummel, Washington, D. C	.....	27
Albert Gleason & Co., Washington, D. C	.....	34

a Bid accepted.

Proposals for constructing the Fifteenth street and F street portions of the F street and Easbys Point intercepting sewer, opened August 1, 1896.

Name and address of bidder.	For excavation above sewer subgrade, including excavation for manholes, etc. (25,600 cubic yards), per cubic yard.	For brick masonry laid in natural cement mortar, including plastering, etc. (1,644 cubic yards), per cubic yard.	For vitrified brick masonry in Portland cement mortar, including forms, etc. (339 cubic yards), per cubic yard.	For concrete masonry in place, natural cement mortar, etc. (1,080 cubic yards), per cubic yard.	Total cost.
B. J. Coyle, Washington, D. C	$0.88	$10.90	$22.00	$7.80	$56,329.60
Lyons Bros., Washington, D. C	.95	9.50	18.90	6.50	a 53,365.10
John Jacoby, Wilmington, Del	1.50	10.00	20.00	8.00	70,260.00

a Bid accepted.

Proposals for grading, regulating, and macadamizing streets, opened August 25, 1896.

Name and address of bidder.	M street NE., between Second and Fourth streets.		Kentucky avenue, between Lincoln Square and B street.			
	Grading, per cubic yard.	Removing and hauling cobble, per square yard.	Grading, per cubic yard.	Setting curb, per linear foot.	Paving cobble gutters and laying flag crossings, per square yard.	Gravel roadway, per square yard.
	Cents.	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*
M. F. Talty, Washington, D. C	a 16	a 10	25	15	25	16
C. H. Eslin, Washington, D. C	18	8	23	17	24	16
W. E. Chaffee, Washington, D. C	37	12	23	16	36	36
Jas. Frawley, Washington, D. C	22	9	a 16½	a 15	a 17	a 13
And. Gleeson, Washington, D. C	20	10	20	15	20	15
Washington Asphalt Block and Tile Company, Washington, D.C.	18	12	20	15	23	14½
R. Seek, Washington, D. C	17½	10	.....	.....	.....	.....
Gaskins & Strang, Washington, D. C	.....	.....	21	22	23	21

a Bid accepted.

als for grading, regulating, and macadamizing streets, etc.—Continued.

nd address of bidder.	Thirteenth street SE., between East Capitol and D streets.				Florida avenue, between Ninth and M streets NE.			
	Grading, per cubic yard.	Setting curb, per linear foot.	Paving cobble gutters and laying flag crossings, per square yard.	Laying gravel roadway, per square yard.	Grading, per cubic yard.	Setting curb, per linear foot.	Paving cobble gutters and laying crossings, per square yard.	Laying macadam roadway, per square yard.
	Cents.	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*
y, Washington, D. C	25	15	25	16	20	15	25	82
ı, Washington, D. C	23	17	24	16	20¼	17	20	79
ffee, Washington, D. C.	22	16	36	24	23	17	36	81
ley, Washington, D. C.	*a* 16¼	*a* 15	*a* 17	*a* 12½	*a* 14	*a* 19	*a* 18	*a* 77½
son, Washington, D. C.	22	14	20	13½	19	14	22	78
on Asphalt Block and pany, Washington, D.C.	20	15	23	14½	19	16	23	86
en, Washington, D. C.					20	18	25	75
; Strang, Washington,	25	22	23	21				

a Bid accepted.

s for improving L street between Fourth and Eighth streets SE., opened March 8, 1897.

Name and address of bidder.	Grading (per cubic yard).	Haul and set curb (per linear foot).	Lay cobble gutters (per square yard).	Lay Gravel roadway (per square yard).
	Cents.	*Cents.*	*Cents.*	*Cents.*
on Asphalt Block and Tile Co., Washington,	20	14	16	*b* 10½
ley, Washington, D. C	15½	15	16	14
wards, Washington, D. C	25	17	19	14

a Bid accepted. *b* Complete in thirty working days.

Proposals for grading North Capitol street, opened April 9, 1897.

Name of bidder.	Price per cubic yard.	Time.
	Cents.	*Days.*
y	17½	150
Gaskins	23	90
wley	32½	150
llin	19½	118
r & Smith	25	120
Heeson	18	*a* 4

a Months.

of bids for paving alley of square 457 with vitrified blocks on 6-inch base, opened June 25, 1897.

Name of bidder.	Price per square yard.
	Cents.
orn & Son	62.5
ington Asphalt Block and Tile Co	67
ord Paving Co	74.5
Allen	87

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YDS. - PER BASIN.
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5TH CONGRESS, 2d Session. } HOUSE OF REPRESENTATIVES. { DOCUMENT No. 7.

REPORT

OF THE

COMMISSIONERS OF THE DISTRICT OF COLUMBIA

FOR THE

YEAR ENDED JUNE 30, 1897.

VOL. III.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1897.

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REPORT

OF THE

HEALTH OFFICER

OF THE

DISTRICT OF COLUMBIA.

1897.

REPORT OF THE HEALTH OFFICER.

HEALTH DEPARTMENT, DISTRICT OF COLUMBIA,
Washington, June 30, 1897.

GENTLEMEN: I have the honor to submit herewith the following report as to the sanitary condition of the District of Columbia during the year ending June 30, 1897, and relative to the operations of the health department during that period, being the twenty-sixth annual report of the department, and the eighteenth since its present organization.

VITAL STATISTICS.

POPULATION.

The census taken by the police department during March, 1897, showed a population of 277,782, made up of 189,547 whites and 88,325 colored. Approximately, therefore, 32 per cent of the entire population is colored. Practically the same ratio prevails during the earlier periods of life as in the population as a whole, as 34 per cent of those under 7 years of age, and the same per cent of those under 15 years, belong to the colored race. The annual average increase since the police census of December, 1894, has been 1.43 per cent for the whites, 0.68 per cent for the colored, and 1.18 per cent for the entire population. While the rate of increase for the colored remains very much below that for the whites, the falling off in the rate has been slightly greater among the latter.

Of the entire population, 47 per cent is male and 53 per cent female. As between the races we find among the whites 49 per cent male and 51 per cent female, while among the colored the corresponding figures are 45 per cent and 55 per cent.

The entire population is therefore made up as follows:

	Per cent.	
White:		
Males	33	
Females	35	
		68
Colored:		
Males	14	
Females	18	
		32
Total		100

The available data does not permit a very accurate distribution of the population according to age; and it is very much to be regretted that the age periods of the police census do not correspond with those of the tabulated vital statistics, having reference, apparently, rather

to the ascertainment of the number of children of school age than to the determination of the death rates. Of the entire population, however, approximately 11 per cent is under 7 years of age and 13 per cent under 15. The proportion of children is somewhat greater among the colored race; of the white population approximately 11 per cent is under 7 years old and 13 per cent less than 15, while of the colored people those under 7 make up 12 per cent and those under 15 years 14 per cent of the whole.

Ordinarily the entire District of Columbia is regarded as the city of Washington, but for the computation of vital statistics it is desirable that some distinction be made, so as to learn the differences, if any, in the death rates in different sections. No proper subdivision has yet been made, but for present purposes it is sufficient to state that the city proper, or what was formerly comprised in the cities of Washington and Georgetown, contains a population of 236,587, the remainder, 41,195, being distributed throughout the county, in which term is included numerous rather densely populated suburbs, as Anacostia, Brookland, Eckington, Hillsdale, Le Droit Park, Mount Pleasant, Rosedale, and Trinidad—that is, 85 per cent of the population is located within the city.

Another and possibly even more important division of the population, according to location of residence, is into those living on streets and those living in the alleys. The entire alley population of the District is 18,978, of which 18,333 live within the city proper. Of the population of the entire District, therefore, 6.83 per cent lives in the alleys; of the white population, 1.13 per cent, and of the colored, 19.05 per cent. If, however, the inquiry be confined to the city, 7.75 per cent of the population inhabits the alleys; of the whites, 2,144, or 1.32 per cent of the white population; and of the colored, 16,189, or 21.75 per cent of the colored population.

As the police census was taken in March, 1897, while the middle of the year, to which the statistics included in this report have reference, was December, 1896, the death rates, wherever they are based upon the entire population, or on the entire white or colored portions of it, have been computed upon the estimated population for the latter month, which is as follows: 188,787 whites, 88,176 colored, and 276,963 total population. This is necessary, not only to approximate more closely the actual death rate for the year at present under consideration, but also to permit proper comparison with the death rates for previous years, which have been, as far as possible, computed upon the basis of the December population. Death rates, however, other than those specified above, and other proportions, have necessarily been computed upon the basis of the March population as ascertained by the census.

MORTALITY.

Having considered the amount and nature of the population of the District, it is necessary to determine the death rates for the community taken as a whole and in its various parts, and the nature of the sickness which makes up these rates. There occurred during the year just ended 5,737 deaths, of which 3,216 were of whites and 2,521 of colored. The corresponding death rates were, therefore, 20.71 for the population as a whole, 17.04 for the whites, and 28.59 for the colored. Upon comparing these figures with those for preceding years, we find that only once during the past twenty-two years, the entire period for which

le figures are available, has the general death rate fallen lower luring the past year, having been 20.57 for the fiscal year 1895. time during this period has the death rate for the whites been and only once, in 1895, has there been a better showing among lored people.

following table shows the variations in the death rates during st twenty-two years:

A.—*Population, deaths, and death rates for the twenty-two years ended June 30, 1897, based upon results of police censuses.*

rs.	Population.			Deaths.			Death rates.		
	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.
.....	106,741	50,859	157,600	2,086	2,074	4,160	19.54	40.78	26.40
.....	109,505	52,870	162,375	2,187	2,021	4,208	19.97	38.22	25.91
.....	112,340	54,960	167,300	2,166	2,065	4,231	19.28	37.57	25.29
.....	115,247	57,130	172,377	2,196	2,113	4,309	19.05	36.90	24.99
.....	118,236	59,402	177,638	2,085	2,121	4,206	17.63	35.71	23.68
.....	121,300	61,760	183,060	2,205	1,931	4,136	18.18	31.27	22.59
.....	124,441	64,212	188,653	2,353	2,218	4,571	18.91	34.54	24.23
.....	126,300	65,680	191,980	2,270	2,016	4,286	17.97	30.69	22.33
.....	131,820	64,670	196,490	2,576	2,238	4,814	19.54	34.61	24.50
.....	134,770	66,340	201,110	2,610	2,388	4,998	19.37	35.97	24.85
.....	137,790	68,050	205,840	2,442	2,232	4,674	17.72	32.80	22.71
.....	140,880	69,800	210,680	2,484	2,181	4,665	17.63	31.25	22.14
.....	144,030	71,600	215,630	2,778	2,262	5,040	19.29	31.59	23.37
.....	148,870	73,960	222,830	2,713	2,439	5,152	18.22	32.93	23.12
.....	155,550	76,910	232,460	2,934	2,630	5,564	18.86	34.20	23.94
.....	162,540	79,980	242,520	3,106	2,614	5,720	19.11	32.68	23.59
.....	169,840	83,170	253,010	3,442	2,656	6,098	20.27	31.93	24.10
.....	175,550	85,250	260,800	3,677	2,775	6,452	20.95	32.55	24.74
.....	179,485	86,115	265,600	3,329	2,710	6,039	18.55	31.47	22.73
.....	183,516	86,998	270,514	3,114	2,451	5,565	16.97	28.18	20.57
.....	186,866	87,294	274,160	3,302	2,602	5,904	17.61	29.54	21.43
.....	188,787	88,176	276,963	3,216	2,521	5,737	17.03	28.59	20.71
nd means	3,174,404	1,585,186	4,729,590	59,271	51,258	110,529	18.66	33	23.36

tributing the deaths according to sex, the death rate for white is found to be 19.28, while for colored males it is 33.07. Among male portion of the white race the death rate was 14.79, and g the colored 26.78. The death rate of the males as a whole was and that of the females 18.79.

before stated, the recent police census did not include such infor- n in reference to the age distribution of the population as would e the usual computations of death rates to be made, viz, the rates of all under 1 year of age and for those under 5 years. In to approximate this, however, the number of persons in each of age periods has been computed upon the basis of the United s census for 1890, assuming that the age distribution in the com- y is the same as at that time. Upon comparing the results thus ed with the figures given by the police census as to the number 7 years of age, they appear to be at least approximately correct. the method of computation above referred to, the white popula- nder 5 years of age amounted to 16,152 and the colored to 8,321. corresponding death rates per 1,000 were, therefore, 52 for the s, 121 for the colored, and 76 for the entire population. The prin- causes of death were: diarrheal diseases, 324 deaths; acute lung ions, 332; tubercular diseases, 157; convulsions, 106; congenital ty and premature births, 216.

he inquiry be limited to those under 1 year of age, we find the ation to be 4,389—of whites, 3,503; and of colored, 1,886. The

mortality for this period of life, therefore, reaches the enormous figure of 262 per 1,000 per annum—for the white 189 and for the colored 397.

Distributing the mortality by locality, we find the death rate of the city proper—that is, what was formerly comprised within the cities of Washington and Georgetown—to be 19.39, and that for the county to be 27.92. It should be noted that in determining these death rates due allowance has been made for the deaths occurring in the various asylums and hospitals located in each section, so that this factor may be practically disregarded in making such comparisons as the reader may desire. As a statement of the population and number of deaths for each square within the city and for each portion of the county is published in the appendix, no effort will be made at present to determine the death rate for different parts of the District, otherwise than as stated above. I can not refrain, however, from calling attention to the very considerable excess of the death rate of that portion of the county lying along the Eastern Branch over that for the county as a whole This district includes the suburbs known as Anacostia, Congress Heights, Garfield, Giesboro, Hillsdale, Harrison street, Good Hope, Twining City, and Benning. These contain a population of 6,589, exclusive of the inmates and attendants of the Government Hospital for the Insane. The number of deaths actually reported from this population was 210. Upon the basis of population, it is fair to assume that of the 1,151 persons who died in the asylums and hospitals during the year 26 came from this section. The total deaths would therefore amount to 236, and the death rate would be 35.82 per thousand. When compared with the death rate of the county as a whole (27.92) it is evident that in this section local causes must be at work to make the difference, and it would appear probable that some, at least, of these causes might be removed and the death rate lowered. The most evident feature of this section which appears likely to account for such an abnormal mortality is the vast tract of marsh commonly known as the Eastern Branch Flats, and the most important step toward lowering the death rate would seem to be the removal of these flats. If, after this has been done, or at the same time, if possible, proper systems of drainage be introduced into such of these subdivisions as are not now so provided, and a water supply be introduced which will permit the abandoning of the shallow wells which are now in use, there is every reason to believe that the diminution in the death rate would amply repay the cost, however great it might be.

Altogether the most remarkable feature of the mortality tables is the unexpectedly low death rate in the alleys. For all alleys in the District of Columbia the death rate is 20.34, or somewhat lower than that for the District as a whole. But in view of the fact that no deaths appear to have been reported from any of the alleys outside of the city, it seems probable that deaths occurring in these places have not been accurately located on the death returns, owing, possibly, to the open character of the country in which they are situated. Our inquiry may, therefore, be properly confined to the alleys within the city. Here we find a death rate of but 7.93 for the whites, 22.67 for the colored, and 20.95 for the entire population. While it has not been practicable in this case to make corrections for deaths of alley residents which occurred in hospitals, it does appear that such correction would materially alter the result.

The comparative mortality in the various alleys, having reference to the number of inhabitants in each, is interesting and instructive. In

eys, each having a population not exceeding 100, the death rate .47; in 43 alleys, with populations between 101 and 200, the death as 21.08; in 13 alleys, having between 201 and 300 inhabitants, ath rate was 22.78, and in 2 alleys, with populations between 301 0, the death rate was 35.70. But in the single alley having a tion in excess of 400—that is, 422—there was not a single death ed. So that while the general death rate in the alleys does not ut preconceived ideas, the death rates as given above indicate, eneral way, that the danger of these places increases with the e in the number of inhabitants.

sifying the mortality according to causation we find an increase ast year in the deaths from constitutional and developmental dis- and a decrease in the number from zymotic and local causes and iolence. From the standpoint of public health, the most impor- these classes is, of course, the zymotic, which includes most of liseases which may be regarded as preventable. Some special ance attaches, however, to the constitutional class, owing to the ce in it of the tubercular diseases, having been inserted in this efore definite knowledge was acquired as to their causation, and allowed to remain until some general plan for the classification l statistics can be adopted throughout the country. Deaths from e are of interest chiefly from a sociological standpoint.

y classes, arranged by sex and color, with percentages and annual death rates for year 1897, and 1896.

TABLE B.—YEAR ENDED JUNE 30, 1897.

of death.	Deaths.							Percentages to total deaths.				Annual death rate.		
	White.		Colored.		White.	Colored.	Total.	White.		Colored.		White.	Colored.	Total.
	M.	F.	M.	F.				M.	F.	M.	F.			
.....	299	278	197	253	577	450	1,027	16.86	19.27	16.27	19.31	3.05	5.13	3.71
ional	332	300	287	328	632	615	1,247	18.72	20.79	23.70	25.04	3.35	6.96	4.50
.....	881	631	565	566	1,512	1,131	2,643	49.69	43.73	46.06	43.21	8.00	12.83	9.55
ental	142	208	106	137	350	243	593	8.01	14.40	8.75	10.46	1.85	2.75	2.15
.....	119	26	56	26	145	82	227	6.71	1.81	4.62	1.98	.76	.93	.82
al	1,773	1,443	1,211	1,310	3,216	2,521	5,737	100	100	100	100	17.01	28.60	20.73

TABLE C.—YEAR ENDED JUNE 30, 1896.

of death.	Deaths.							Percentages to total deaths.				Annual death rate.		
	White.		Colored.		White.	Colored.	Total.	White.		Colored.		White.	Colored.	Total.
	M.	F.	M.	F.				M.	F.	M.	F.			
.....	381	312	292	262	693	554	1,247	21.05	20.92	22.64	19.97	3.69	6.30	4.53
ional	295	323	273	310	618	583	1,201	16.30	21.63	21.16	23.63	3.30	6.63	4.36
.....	879	668	568	576	1,547	1,144	2,691	48.56	44.78	44.03	43.90	8.25	13.01	9.77
ental	130	153	101	147	283	248	531	7.18	10.26	7.83	11.20	1.51	2.71	1.92
.....	125	36	56	17	161	73	234	6.91	2.41	4.34	1.30	.86	.83	.85
al	1,810	1,492	1,290	1,312	3,302	2,602	5,904	100	100	100	100	17.61	29.48	21.43

Zymotic diseases.—The entire number of deaths from zymotic diseases was 1,027, being 220 less than during the preceding year, and forming 17.90 per cent of the deaths from all causes. Of this number 577 were whites and 450 colored; 577 were children under 5 years old.

In certain diseases of this class the number of fatal cases shows an increase; thus the deaths from diphtheria increased from 75 to 110; from whooping cough, from 22 to 65, and from grippe, from 53 to 118. But the fatal cases of measles diminished from 70 to 3; from scarlet fever, from 13 to 1; from croup, so-called, from 9 to 6; from typhoid fever, including so-called typho-malarial fever, from 240 to 153; from malarial fever, from 72 to 51, and from diarrheal diseases, from 468 to 358.

The number of deaths from diphtheria is not excessive, as, except during the year immediately preceding, it has not fallen so low since 1889. The mortality from this disease is further discussed in connection with the consideration of the operations of the department under the scarlet fever and diphtheria law.

The number of deaths from whooping cough indicates a marked increase in the prevalence of this disease, but in the absence of any law requiring the report of cases the extent of such increase can not be ascertained with any degree of accuracy.

Grippe first appeared upon the mortality tables during the latter part of December. In January it caused 21 deaths, in February 52 deaths, and in March 24 deaths. From that time it declined, but a single death being reported during June. It prevailed mostly among persons of advanced age, 74 of those who died being over 50 years of age. Seven of the deaths occurred among children under 5 years old.

There is no record of a year passing prior to that now under consideration with but a single death from scarlet fever. A statement as to the mortality from this disease in other places is made in connection with the consideration of the operations of the department under the scarlet fever and diphtheria law.

The most important feature in the decrease in the number of deaths from zymotic diseases is the diminution in the number of fatal cases of typhoid fever and diarrheal diseases. And while malarial fever itself can not be properly classed with such diseases, the extreme rarity of fatal cases of this disease in this climate, in the practice of many of the best informed physicians, renders it not unlikely that many of the deaths reported as due to it were in reality due to typhoid fever. So that the apparent decrease in malarial fever may be considered in this connection. The decrease was as follows:

	1896.	1897.
Typhoid fever	240	153
Diarrheal diseases	468	358
Malarial fever	72	51
Total	780	562

While it is not safe to base conclusions upon this improvement in the death rate for a single year, yet its coincidence with the closing of a very considerable number of surface wells; with the replacement of a very considerable number of box privies with running closets, and the proper drainage of the premises; and with a closer supervision of the milk supply, is very suggestive of some relation of cause and effect, and possibly justifies us in expecting further improvement in the future. The present diminution in the typhoid fever death rate is especially

satisfactory, as it had increased continuously since 1887. The death rate from this disease during the past year (0.53 per 1,000) is the lowest since 1884, and is considerably lower than the average for the past twenty-two years (0.64).

Constitutional diseases.—There were 1,247 deaths from diseases of this class, being 21.73 per cent of the mortality from all causes. Of this number 632 were white and 615 colored.

The greater part of the deaths in this class were due to the various forms of tuberculosis, the deaths from this cause numbering 1,053, of which 776 were from pulmonary phthisis. These diseases have been, as usual, much more prevalent among the colored than among the whites, the death rate for the former being from the pulmonary variety alone 4.67, while that for the latter was but 1.94.

Local diseases.—In this class there were 2,643 deaths, being 46.05 per cent of the total mortality. Of these 1,512 were white and 1,131 colored.

From diseases of the nervous system 685 deaths occurred, 11.94 per cent of the total mortality. Of these 437 were white and 248 colored. Cerebral hemorrhage caused 205 deaths; convulsions (mainly infantile), 108 deaths; meningitis, 69 deaths; epilepsy and insanity, 82 deaths, and heat stroke, 43 deaths.

Diseases of the circulatory organs caused 423 deaths, 7.37 per cent of all, 244 being white and 179 colored. Of this number 308 were valvular diseases of the heart and 15 were reported as due to angina pectoris.

From diseases of the organs of respiration, except pulmonary tuberculosis, there were 764 deaths—386 white and 378 colored. Of these 509 were from pneumonia and 193 from bronchitis and congestion of the lungs. The largest mortality occurred during the months of January, February, and March. Forty-five per cent of deaths in this class occurred in children under 5 years of age.

Diseases of the digestive organs caused 408 deaths, the principal causes being gastric and enteric catarrhs, cirrhosis of the liver, and peritonitis. Of the decedents 225 were white, 183 colored, and 183 children under 5 years of age.

From diseases of the urinary organs 306 deaths occurred, of which 185 were from nephritis. Bright's disease was reported as causing 52 deaths; enlarged prostate 10, and cystitis 11.

Diseases of the generative organs were charged with 27 deaths—13 white and 14 colored; all females. Of these, 11 were due to fibroids of the uterus and 10 to pyosalpinx and salpingitis. Certain diseases of these organs are charged among the developmental diseases, the above figures being susceptible of misinterpretation unless this be borne in mind.

Diseases of the osseous and locomotary systems caused 22 deaths, principally gangrenes and osseous necroses. Integumentary affections caused 8 deaths, of which 7 were from sarcomatous formations.

Developmental.—In this class, which includes diseases incident to childbirth, infancy, and old age, not otherwise classified, there were 593 deaths, of which 277 were infants, 68 women in the puerperal state, and 248 the aged. There were 34 deaths reported as due to puerperal infections, 7 to abortions, and 4 to umbilical hemorrhage.

Violence.—There were 227 deaths from violence during the year, of which 168 were accidental, 11 homicidal, and 47 suicidal.

Of the accidental deaths 101 were of whites and 67 of colored. In 29 cases death resulted from drowning; in 28 from falls; in 22 from burns and scalds; in 15 from injuries received from steam railways; in 9 from

injuries received from street cars; in 5 from gunshot wounds; in 9 from poisons, and 7 from traumatic tetanus. The number of deaths from injuries from steam railways is, of course, in excess of the number of fatal accidents from such conveyances in the District of Columbia, as not infrequently persons who have been seriously injured in adjoining States are brought here for treatment, while the reverse seldom occurs.

Of the homicidal deaths, 5 resulted from gunshot wounds, 3 from stabs, and 2 from blows on the head.

Of the suicidal deaths, 17 resulted from pistol shots, 10 from the inhalation of illuminating gas, 13 by poison, and 2 by hanging.

The number of deaths from suicide shows an increase of 9 over the corresponding figures for the preceding year, and an increase of 6, or almost 15 per cent, over the highest number previously recorded. The average number of suicides per annum during the past twenty-two years has been 17.20; during the five years' period, 1878 to 1882, it was 12; from 1883 to 1887, it rose to 17.40; during the following five years, 1888 to 1892, it was 23.20, and during the period just ended, 1893 to 1897, it was 39.40. The population has not doubled, but the number of suicides has increased more than threefold.

BIRTHS.

The total number of births reported was 4,573, of which 2,761 were of whites and 1,812 of colored. If, however, we accept the estimated population below 1 year of age as correct, 816 births occurred which were not reported. The birth rate, even when based upon the estimated number of births and not upon those of which official returns were made, falls below the death rate for the colored, being 21.39; and for the entire population being 19.46.

In the case of whites the balance is slightly in favor of the birth rate, being 18.03.

The births reported as illegitimate numbered 573, of which 96 were white and 477 colored. During the preceding year the number of such births reported was 617.

Of the entire number of birth returns, 2,466 were received from physicians and 2,107 from midwives.

STILLBIRTHS.

The returns of stillbirths amounted to 487—187 whites and 300 colored—while during the preceding year returns were received in 520 cases. Of this number 153 were illegitimate—33 white and 120 colored. The returns were made by the coroner in 118 cases, which usually had reference to bodies which had been abandoned in public places. The number that went to full term was 197, and in three instances pregnancy was reported as having proceeded to the tenth month. The chief causes alleged were difficult labor in 24 cases, falls by mother in 14, overexertion by mother in 21, placenta previa in 9, and syphilis in 11.

MARRIAGES.

Returns were received from 1,519 marriages—between whites 984, and between colored 535.

The number of marriage licenses issued by the clerk of the court during the fiscal year 1896 was 3,618, while during the past year it was but 2,476. As it is a reasonable presumption that each such license represents a marriage, the approximate number of failures to make the

return required by law was 957, or 39 per cent of the entire number of marriages.

The only remedy for this condition is the issue of these licenses to particular persons, with the right of assignment if they be unavoidably prevented from performing the ceremony, instead of the issue, as at present, "to any minister or person authorized to solemnize marriages." If such a plan were adopted, it would be possible to require the proper return to be made in each case, as the name of the person who celebrated the marriage would be known. Moreover, the liability for the performance of the marriage ceremony by unauthorized persons, as has been occasionally done in the past, either through ignorance or willful wrong, would be very much diminished. The fact that the adoption of this plan would necessitate the selection of the person who is to perform the ceremony before the license could be secured would not seriously interfere with any well-considered marriage, and the interference with others would probably be beneficial rather than otherwise.

TRANSCRIPTS FROM RECORDS.

The recommendation contained in the preceding report of this department, that a fee be charged for transcripts from the records, was put into effect by the passage of an act authorizing the Commissioners of the District of Columbia to charge a fee for the issuance of transcripts from the records of the health department, approved March 3, 1897, which took effect thirty days after its passage. Between that time and the end of the fiscal year there was collected the sum of $54.

As the records from which such transcripts are made cost approximately $3,000 per annum, it is evident that the fees collected will not begin to pay the cost. But the establishment of this fee has answered the purpose for which it was mainly intended—that is, it has diminished the number of applications for transcripts without any real need therefor on the part of the applicant, as will appear from the fact that the average number of transcripts issued during each working day prior to the passage of the act was 3.55, while after the act went into effect it diminished to 1.57. The total number of transcripts issued during the year was 957.

OFFICIAL REGISTERS.

Under the act to regulate the practice of medicine, approved June 3, 1896, 966 physicians have been registered at the health department. Of this number 961 have held licenses issued by virtue of registration at the health office at the time of the passage of the present law, and five licenses issued by reason of the licentiates having successfully passed examinations.

No midwives have been registered, no licenses of this class having as yet been issued by the board of medical supervisors, and, under the act above referred to, registration only being granted to holders of such licenses.

The register of dentists shows an increase of twelve during the year. Under the act for the regulation of the practice of dentistry, approved June 6, 1892, licenses from the board of dental examiners are necessary in order to secure such registration.

The register of undertakers, under the regulations to secure a full and correct record of vital statistics, promulgated by the late board of health, shows the total number to be 106. Attention is again invited

to the absence of any legal standard of attainment necessary to entitle one to register as an undertaker; and in view of the sanitary importance of the proper care of the dead, it is respectfully recommended that steps be taken to secure the passage of a law to regulate the practice of this art.

PRIVATE HOSPITALS.

Application has been received for the maintenance of one new private hospital, and one such institution, for the maintenance of which a permit has been asked, has ceased to exist. No formal permits have yet been issued, owing to the vagueness of the law as to the conditions under which such issue should be made. It is hoped that some action may be taken during the coming year to secure such modifications of the present law as are necessary for its intelligent enforcement.

CEMETERIES.

There has been no change in the number or location of cemeteries in this District during the past year.

A bill prepared by this department for the regulation of cemeteries and the disposal of dead bodies was passed by both Houses of Congress, but failed to become a law by reason of the failure of the President to sign it, owing, it is believed, merely to the extremely late hour of his official life at which it was presented to him for that purpose. The same bill was introduced at the subsequent extraordinary session, passed the Senate, and is now on the House Calendar.

The recommendation made in the two preceding reports of this department that a crematory be erected as an adjunct to potter's field is respectfully renewed. If all bodies to be interred in this tract of land be cremated before interment, it will last for an indefinite period; but unless some such provision be made, additional land must soon be purchased or the present site will be so overcrowded as to become a nuisance and a menace to the health of the unfortunate inmates of those institutions located in its immediate vicinity. Such a crematory, if erected, will be of service, from a sanitary standpoint also, for the destruction of the remains of those dying of the graver contagious diseases.

The need of a municipal crematory was recognized by the grand jury of New Orleans in 1883, and the establishment of a crematory for the incineration of the bodies of those dying of contagious diseases recommended. In 1888 the New York State legislature, acting upon a recommendation of a committee of the Society of Medical Jurisprudence and State Medicine, required the commissioners of quarantine to erect and establish a crematory for the destruction of the bodies of persons dying at the contagious hospital from contagious diseases. The recommendation of this committee was accompanied by a draft of a bill which provided not only for the incineration of the remains of persons dying of contagious diseases, but also of the remains of paupers and unidentified persons. And the health department of the city of Philadelphia maintains a crematory for the same purpose.

ANATOMICAL MATERIAL.

During the past year bodies to be used for scientific purposes have been offered for distribution by the various hospitals, and have been distributed to the various medical colleges, as shown in the following table:

TABLE D.—*Distribution of cadavers.*

	No. of students.	Percentage.	1896. July. Good.	July. Post.	Aug. Good.	Aug. Post.	Sept. Good.	Sept. Post.	Oct. Good.	Oct. Post.	Nov. Good.	Nov. Post.	Dec. Good.	Dec. Post.
From—														
Freedmen's									1		2		1	
Washington Asylum			1		1		3		1		2		2	
Providence														
Columbia											1			
Garfield														
Total			1		1		3		2		5		3	
To—														
Georgetown University *a*	85	20.80	1						1		2			
National University	33	8.00					1				1			
Howard University	102	25.00					1				1		1	
Columbia University	189	46.20			1		1				1		2	
Army Medical School									1					
Total			1		1		3		2		5		3	

	1897. Jan Good.	Jan Post.	Feb. Good.	Feb. Post.	Mar. Good.	Mar. Post.	Apr. Good.	Apr. Post.	May. Good.	May. Post.	June. Good.	June. Post.	Total. Good.	Total. Post.
From—														
Freedmen's	1	2	2	3	1		8	1					16	6
Washington Asylum	4	1	2		1		2		1		2		22	1
Providence														
Columbia													1	
Garfield					1								1	
Total	5	3	4	3	3		10	1	1		2		40	7
To—														
Georgetown University *a*	1	1			1		7		1		2		16	1
National University				2			2						4	2
Howard University	1	1	2		1		1						8	1
Columbia University	2	1	2	1	1			1					10	3
Army Medical School	1												2	
Total	5	3	4	3	3		10	1	1		2		40	7

a By an agreement between representatives of all medical schools Georgetown University received all bodies offered for distribution during the summer of 1895; hence the large number delivered to this institution in excess of its regular quota.

The total number of bodies so distributed has been but 47, of which had been subjected to post-mortem examinations prior to delivery. The plan of distribution has been the same as was described in the preceding report of this department, but the supply of material has been too small to meet the requirements of those engaged in medical education. As the Government, which in the interest of public health very properly makes certain educational requirements of those desiring to practice medicine, should properly be interested in securing for students of that art means whereby they can prepare themselves to meet those requirements, it is recommended that the law under which these bodies are distributed be so amended as to make it mandatory

upon those in charge of hospitals and asylums to deliver for scient purposes such bodies as they are now permitted to deliver if they so inclined. The care and distribution of such bodies might, w advantage, be intrusted to a commission created for that purpose, is done in Pennsylvania.

RELIEF OF THE POOR.

The work done by the physicians to the poor is shown by the followi table:

TABLE E.—*The sick poor.*

Months.	Patients treated.	White.	Colored.	Visits made.	Office consultations.	Cost medici furnish
1896.						
July	1,130	452	678	1,817	273	$15
August	1,487	637	850	2,514	332	19
September	1,473	662	811	2,435	320	15
October	1,066	490	576	1,785	287	20
November	922	425	497	1,677	212	13
December	1,105	491	614	1,997	264	17
1897.						
January	1,344	497	847	2,380	229	22
February	1,322	489	833	2,338	214	21
March	1,282	468	814	2,289	217	17
April	923	392	531	1,708	197	12
May	880	339	541	1,495	230	12
June	971	406	565	1,604	238	16
Total	13,905	5,748	8,157	25,039	3,013	2,04

To the cost of medicines given in column above must be added, order to give correct amount expended for medicines during fiscal ye tablet triturates, $199.42; antitoxic serum, $59.50; for supplies fi nished homeopathic physicians to the poor for April, May, and Ju 1897, $48; making total cost of medicines for fiscal year 1897, $2,355,

TABLE F.—*The sick poor for fifteen years.*

Years.	Patients treated.	White.	Colored.	Visits made	Office consultations.	Cost medici furnish
1883	15,611	5,347	10,264	22,542	4,122	$3,15
1884	16,121	5,022	11,099	22,633	5,088	2,96
1885	15,211	4,692	10,519	21,160	4,204	2,91
1886	16,901	5,430	11,471	21,824	5,659	3,86
1887	15,795	5,072	10,723	21,340	4,501	3,09
1888	15,352	4,745	10,607	21,722	3,934	3,06
1889	14,575	4,842	9,733	19,919	4,239	3,03
1890	16,576	5,619	10,957	22,547	4,410	3,35
1891	13,238	4,641	8,597	18,728	3,177	2,35
1892	12,637	4,338	8,299	16,746	2,997	2,56
1893	12,430	4,079	8,351	19,037	2,468	2,73
1894	16,109	6,112	9,997	26,210	3,356	3,63
1895	15,150	6,186	8,964	23,625	2,973	3,34
1896	15,606	6,893	8,713	26,556	2,472	2,86
1897	13,905	5,748	8,157	25,039	3,013	2,35

From the above table it appears that the number of patients trea during the past year, either taken as a whole or with reference to white and colored elements, has been smaller than at any time si 1893. It should be borne in mind, however, that the figures given show the number of patients treated are absolutely worthless exc for the purposes of comparison, and that they are not of much va

even for this, since they merely indicate the sum of the patients reported each week as being under treatment, so that a single patient, if he happens to be under treatment during a portion of two weeks, will appear as two patients. An effort will be made to correct this method of keeping the records prior to the issue of another report.

More accurate information as to the amount of work done may be gathered from the number of visits and office consultations. These amounted to 28,052, while during the preceding year there were 28,028.

The average cost of each patient has been 52 cents for medical attendance and 17 cents for medical supplies, making a total cost of 69 cents per "patient," using the term in the manner previously explained. The amount received by each physician for each visit or consultation has been, approximately, 26 cents.

Attention is invited to the recommendations of this department of June 17, 1897, in reply to a letter from the Congressional Joint Select Committee to Investigate Charities and Reformatory Institutions in the District of Columbia, which has been printed in the hearings before that committee. (See Senate Doc. No. 185, Fifty-fifth Congress, first session.) These recommendations are, in so far as they relate to the physicians to the poor, respectfully renewed.

CONTAGIOUS DISEASES.

SCARLET FEVER AND DIPHTHERIA SERVICE.

Scarlet fever.—There were reported during the past year 160 cases of scarlet fever, of which 148 were white and 12 colored. The incidence per 10,000 of the population was, therefore, 7.84 among the whites, 4.36 among the colored, and 5.74 among the population as a whole. These figures show a marked diminution in the prevalence of this disease during the year. That the type of the disease which has occurred has been exceedingly mild is shown by the occurrence of but a single death, a fatality of but 0.6 per cent.

TABLE G.—*Reported cases of scarlet fever.*

Years.	Ratio per 10,000 of population.			Percentage of fatal cases.		
	White.	Colored.	Total.	White.	Colored.	Total.
93–94	12.20	1.72	8.83	6.25	.....	5.85
94–95	20.36	5.12	15.50	3.66	4.44	3.74
95–96	14.95	2.84	11.10	3.56	12	4.24
96–97	7.84	1.36	5.74	.67	.....	.62

The extent to which scarlet fever has prevailed in the various parts of the United States during the year is indicated in the following statement. While the figures given can not be accepted as mathematically accurate, they are subject only to the same sources of error as other vital statistics. So far as is known there is no reason to believe that the amount of such error is greater in one place than another, so that for purposes of comparison they may be accepted as substantially correct.

Incidence of scarlet fever in fifteen cities in the United States during the year ended June 30, 1897.

Cities.	Per 10,000 of population.		Cities.	Per 10,000 of population.	
	Reported cases.	Deaths.		Reported cases.	Deaths.
Boston	38.60	3.30	Omaha	7.90	.57
New York	32.90	2.10	Atlanta	7.20	.85
Philadelphia	22.70	1.70	Washington	5.70	.03
Detroit	20.30	1.30	San Francisco	4.70	.16
Baltimore	19.30	.94	Milwaukee	3.90	.26
Buffalo	18.10	.57	New Orleans	3.10	.07
Pittsburg	14.90	.55	Chicago	(a)	.47
Cleveland	8.40	.17			

a Report of cases inaccurate.

Diphtheria.—During the year there has been reported among the white portion of the population 494 cases of diphtheria, 78 of which terminated fatally, and among the colored 126 cases, of which 32 were fatal. The incidence of this disease per 10,000 of the population was among the whites 26.16, among the colored 14.29, and among the entire population 22.38, showing a marked increase in prevalence during the past year, as shown in Table H.

TABLE H.—*Reported cases of diphtheria*

Years.	Ratio per 10,000 of population.			Percentage of fatal cases.		
	White.	Colored.	Total.	White.	Colored.	Total.
1893–94	14.06	20	15.97	43.41	34.48	39.81
1894–95	15.72	13.31	14.95	30.84	28.20	30.09
1895–96	15.24	4.54	11.84	23.07	25	23.11
1896–97	26.16	14.29	22.38	15.79	25.39	17.74

The cause of this increase it has not been possible to determine, but there is no reason to believe that it was in any way due to local conditions, as a similar increase was noted in many places situated in widely separated parts of the United States. The actual extent to which this disease prevailed in the various places during the period covered by this report is fairly shown in the following statement:

Incidence of diphtheria in fifteen cities in the United States during the year ended June 30, 1897.

Cities.	Per 10,000 of population.		Cities.	Per 10,000 of population.	
	Reported cases.	Deaths.		Reported cases.	Deaths.
Boston	89.10	10.40	Washington	22.30	3.90
New York	56.40	7.50	Baltimore	14	5.40
Detroit	45.80	11.20	Omaha	13.10	3.20
Buffalo	38	7.60	New Orleans	11.90	1.70
Milwaukee	33.80	6.50	San Francisco	8.60	1.80
Philadelphia	33.20	8.30	Atlanta	1.80	.40
Pittsburg	22.70	5.80	Chicago	(a)	5.20
Cleveland	22.30	4.80			

a Report of cases inaccurate.

The remarks made in reference to the sources of error in the corre-onding table in reference to scarlet fever apply with equal force to the esent instance.

While the incidence of diphtheria among the colored people was less an among the whites, the fatality was much greater, viz, 23.36 among e colored, 16.15 among the whites, and 17.74 among the population ken as a whole. These figures are, however, in each instance less an they have been for any one of the three preceding years. A tailed statement showing the relative fatality in cases treated with phtheria antitoxic serum and those treated without it will be found the report of the medical sanitary inspector. The status of this ticle as a remedial agent seems to be too well established to require rther discussion.

The examination of cultures from cases suspected of being diphtheria s been continued as during the two preceding years, the cost being id from the meager appropriation for the enforcement of the act to event the spread of scarlet fever and diphtheria. The extent of the mand for this service is indicated by the presentation of 942 primary ltures (viz, cultures from cases suspected of being diphtheria) for rposes of diagnosis, as against 593 during the year preceding. In ly 44.59 per cent of these cultures were specific diphtheria bacilli nd. The total number of cultures examined, both primary and condary, was 2,179.

Disinfecting service.—It is to be regretted that no appropriation has en made for the maintenance of the disinfecting service, the estab-hment of which was authorized by the act of March 2, 1895. As a sult, the disinfection of infected premises has to be intrusted to the skilled, and in many cases unwilling hands of the occupants, with rrespondingly unsatisfactory results. Such movable articles as quire steam disinfection have been removed to the disinfecting ation and properly treated. There have been disinfected in this anner 1,051 pillows, 578 mattresses, 568 blankets, 210 rugs, and 1,248 iscellaneous articles, making 3,655 pieces in all. Many of these, how-er, have probably been immediately reinfected upon their return to e imperfectly cleansed apartments from which they were taken. The blic must look to the proper disinfection of infected premises for its munity from contagious disease quite as much as to the proper iso-tion of the sick. And as in nearly every instance the families in hich such diseases occur neither have nor are able to secure trained sistants to perform such disinfection, it is necessary that means be ovided at public expense whereby this work may be done. An propriation for the maintenance of a disinfecting service is, therefore, spectfully recommended.

Ambulance for contagious diseases.—An important addition to the uipment of the health department has been made during the past ar by the purchase of an ambulance for the transportation of patients ffering from scarlet fever and diphtheria to the hospital, when hospi-l accommodations can be secured. It has already been of service a number of cases.

Isolation wards.—It is expected that another step in advance will be ade during the coming year by the erection of wards for the treat-ent of patients suffering from minor contagious diseases, for which an propriation of $30,000 is now available. The assistance rendered ring the past year by those in charge of Providence Hospital in ceiving and caring for cases of scarlet fever and diphtheria is grate-lly acknowledged. The fact that in treating such cases there has

been no spread of either disease in the vicinity of the hospital, or in the institution itself, although improved appliances for preve it have not been available, should have influence in convincin public that a hospital or ward for the treatment of these disea not a menace to health.

Legislation.—The law under which the scarlet fever and diph service has been maintained is seriously in need of amendment to it more effective. It was proposed to accomplish this purpose by i ing the diseases named in the provisions of the bill introduced d the second session of the Fifty-fourth Congress to prevent the s of the graver contagious diseases, as smallpox, yellow fever, A cholera, etc., but it was found inexpedient to do so. It is hope the needed legislation can be secured during the approaching s of Congress.

Expenses of service.—The cost of the scarlet fever and diptheria ice has been approximately $5,000.

MAJOR CONTAGIOUS DISEASES.

While the District of Columbia has not been afflicted with any graver forms of contagious disease during the past year, and with ence to most of them not for many years, if at all, it was thought able to secure the authority necessary for the proper managem any cases which may hereafter occur. For this reason a bill to pr the spread of such diseases in the District of Columbia was pres to Congress, and became a law on March 3, 1897. Having now se the right to regulate the management of such diseases, it is ess that money for carrying the provisions of the law into effect be available for immediate use, should occasion require. For this pu I have asked for an appropriation of $25,000.

Under the present system the emergency fund is the only appr tion from which the expenses of suppressing an outbreak of any diseases named can be met. The amount of this appropriation i ally $8,000, and from this it is necessary to meet all emerg which are not otherwise provided for. For instance, the exper removing the bodies of dead horses from the Knox fire was paid this appropriation; so, also, was the cost of the removal of débris the streets which resulted from the severe storm of September 29, When subject to draft for such purposes, it is evident that the may be almost entirely exhausted early in the fiscal year, or at long before its close, so that the sum remaining for the suppress an outbreak of any contagious disease may be insignificant. O other hand, with the creation of a fund for this specific purpose, will be no additional expense, as it will probably lie idle most time, being available only for the one purpose; but if, on the hand, it is needed, it will be ready without delay, and prompt is of prime importance in such matters. The establishment of a demic fund is therefore urgently recommended.

INSPECTION OF FOREIGN VESSELS.

There were inspected and passed at the port of Washington bet July 1, 1896, and June 9, 1897, 8 vessels from foreign ports, 5 c from St. Johns, New Brunswick, with cargoes of laths, and the rema bringing asphalt from Trinidad. The inspection of such vessel discontinued upon the date last mentioned, as at that time the U

States Marine-Hospital Bureau established a quarantine station at Alexandria, Va., at which all inbound vessels must be inspected and passed before being permitted to proceed to this city.

CONTAGIOUS DISEASES OF ANIMALS.

During the past year the District has been entirely free from glanders, and has had but one case of hog cholera.

Seven cases of alleged rabies have been investigated in the laboratory of the Bureau of Animal Industry, upon request of this department, but in only one case was the disease found to be present.

PERMITS TO ROPE OFF STREETS AND ALLEYS.

Under the order of the Commissioners of August 23, 1883, intrusting to the health department the issue of permits to prevent the passage of vehicles in neighborhoods where persons are so seriously ill as to make such a step necessary, there have been issued 417 permits, an increase of 81 since last year. And not only has the number of permits increased, but the average time of obstruction in each case was greater, being 9.20 days, as compared with 7 days during 1896, and the number of physicians from whom certificates were received has increased from 252 to 318; that is, the number of permits has increased 24 per cent, the average time covered by each permit, 31 per cent, and the number of physicians certifying, 26 per cent. From the preceding figures it is apparent that the demand for the issue of these permits is increasing without any sufficient explanation therefor.

TABLE I.—*Permits issued to rope off streets and alleys to cause temporary suspension of travel in consequence of serious illness, etc.*

Fiscal years.	1896.						1897.						Total.	Total permit days.	Average time of each permit.	Total number of physicians certifying.
	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.				
1893	10	14	8	6	6	4	1	6	3	4	9	11	82	427	5.2	56
1894	11	12	8	11	4	4	5	4	6	4	5	12	86	860	10	62
1895	16	12	9	7	7	2	5	....	8	3	13	9	91	670	7.3	71
1896	9	13	15	3	4	2	3	1	....	7	7	12	77	428	5.5	63
1897	19	15	9	5	2	5	4	1	5	....	6	10	81	624	7.7	66
Total	65	66	49	32	23	17	18	12	22	18	40	54	417	3,009	9.2	318

In fact, there would seem to be less real need in this city for such obstruction of traffic on account of the large extent of asphalt streets than in other cities not so favored, but the custom of issuing such permit for this purpose, or permitting it to be done, does not prevail elsewhere. The practice, therefore, can hardly be justified on the score of necessity, except possibly in very rare instances. The recommendations contained in the preceding report for its restriction are therefore respectfully renewed.

CHEMICAL LABORATORY.

Attention is invited to the fact that the annual appropriation which has usually been made for the support of the chemical laboratory was withdrawn during the past year, entailing a serious drain upon the

contingent fund of the office, which was not increased to meet it. The work of the laboratory was therefore correspondingly hampered; and while the salary of the sanitary and food inspector in charge of this laboratory has been increased so as to be slightly more in keeping with the degree of technical education required, no provision has been made for an assistant to relieve him of the mechanical work of caring for apparatus, etc. The absence of such an assistant, who might be secured for a salary of from $600 to $800 per annum, is in the end an extravagance, since it very much diminishes the amount of work which can be done and increases the relative cost by causing the time of the chemist, which must be paid for at the rate of $1,500 per annum, to be occupied with the performance of minor details of office work. The estimates which have been submitted have included, therefore, an appropriation for the services of an assistant.

There have been analyzed during the year 588 specimens, of which 258 were milk, 6 cream, 185 water, 107 foods (including candies), 17 drugs, and 15 miscellaneous articles. Of the analyses included under the last heading, 5 were of specimens received from and analyzed for the coroner. The consideration of the results of the analyses of the samples of milk and cream will be found in connection with the general consideration of milk inspection, and of those of foods and drugs in connection with the memoranda in relation to the inspection of those articles.

Of the 185 samples of water examined, 115 were from public wells and 65 from private wells, the remaining 5 being analyses of Potomac water.

Well water.—Of the samples of water from public wells, 14.7 per cent, and of those from private wells 49.2 per cent have been found impure.

This difference is due partly to the greater care exercised in the construction and maintenance of public wells, but it is brought about to a certain extent by the fact that analyses were made of water from public wells from time to time, as a part of the ordinary routine of the office work, and in the absence of circumstances pointing directly to pollution, while in the case of private wells no such supervision is exercised, analyses only being made upon request of the owner, or when the department has reason to believe that impurities are present.

As shown by the report of the engineer department, 11 public shallow wells were closed during the year, representing 7.64 per cent of the entire number, and leaving 133 in use. Twenty deep wells have been sunk, making a total of 21 such wells now in use. One well of this character was abandoned owing to the presence of sodium chloride in excess, even after considerable depth had been reached.

Potomac water.—The chemical analyses of Potomac water have not revealed the presence in excessive amount of any of those ingredients upon whose presence the chemist depends in order to determine its "potability." The fallacy of chemical tests alone, however, as criteria of the quality of water from a sanitary standpoint is now so generally admitted that the above findings can not be allowed to negative the fact that intestinal bacilli have been repeatedly found in Potomac water. And while no bacilli have been found, at least so far as the information of this department extends, which could be positively identified as those of typhoid fever, or other specific disease, the finding of such organisms in any public water supply is exceedingly rare, judgment being usually based upon the presence of allied bacilli. It has been pointed out that the presence of such bacilli in the Potomac water may be due to harmless sources of contamination; that is, other than drainage from towns situated on the Upper Potomac and its tributaries;

nt in view of the large number of people living in these towns and ıe present knowledge as to the unreliability of "self-purification" of ınning streams as a means of destroying contamination from such ırces, this seems to be the most probable origin.

Because of the conditions pointed out above, this department recom-ended, December 2, 1895, that the Potomac basin be surveyed with pecial reference to the present and prospective sources of contamina-ın of our water supply, with a view to determining what measures, if y, were necessary to remove, and to prevent the recurrence of, pollu-ın resulting therefrom. Col. George H. Elliott, U. S. A., formerly in arge of the Washington Aqueduct, had already recommended, in his nual report for 1894, that provision be made for a systemic monthly emical and bacteriological examination of the Potomac water as it is nt to the city from the distributing reservoir. An effort was made ıring the past year to put into effect both of these recommendations a joint resolution (S. R. 194) to establish a commission to investigate e sources of contamination of the Potomac River, etc. This was bsequently replaced by a proposed amendment to the sundry civil ll (H. R. 10292) which gave the entire work into the control of the arine-Hospital Service, together with similar work in reference to ıblic water supplies throughout the country, but this amendment was ıt passed.

The entire matter rests, therefore, in the same place as at the time hen the previous recommendation of this department was made, which ıcommendation is, therefore, respectfully renewed.

School hygiene.—The report of the chemist, which will be found in the ıpendix, contains much valuable information in reference to the heat-ıg and ventilating of our school buildings. Owing to the insufficiency the apparatus in the possession of the department at the time the inves-gation was made, the results were not, however, as complete as it was ısired they should be. The work will, therefore, be continued.

The sanitary condition of the public schools of this District was the ıbject of an investigation by a committee appointed by the House of epresentatives February 20, 1882, and consisting of Col. John S. Bil-ıgs, then Surgeon, United States Army, Mr. John Eaton, then Commis-oner of Education, and Mr. Edward Clark, Architect of the United tates Capitol. Its report was printed in Miscellaneous Document No. ı, Forty-seventh Congress, first session. The conclusions of this com-ittee, which are, it is believed, of sufficient importance to justify their ıotation at length, were as follows:

(1) All sides of the building shall be fully exposed to light and air, for which pur-se they shall not be less than 60 feet distant from any opposite building.
(2) Not more than three of the floors—better only two—shall be occupied for class oms.
(3) In each class room not less than 15 square feet of floor area shall be allotted to ch pupil.
(4) In each class room the window space should not be less than one-fourth of the or space, and the distance of the desk most remote from the window should not more than one and a half times the height of the top of the window from the or.
(5) The height of the class room should never exceed 14 feet.
(6) The provisions for ventilation should be such as to provide for each person in lass room not less than 30 cubic feet of fresh air per minute, which amount must introduced and thoroughly distributed without creating unpleasant drafts, or using any two parts of the room to differ in temperature more than 2° F., or the ıximum temperature to exceed 70° F. The velocity of the incoming air should t exceed 2 feet per second at any point where it is liable to strike on the person.
(7) The heating of the fresh air should be effected by indirect radiation.
(8) All closets for containing clothing and wraps should be thoroughly ventilated.
(9) Water-closet accommodations for the pupils should be provided on each floor.
(10) The building should not occupy more than half of the lot.

The school buildings which are erected to-day are modeled along the lines laid down by this committee, and from a sanitary standpoint can be little, if at all, improved upon. The sites which are usually purchased for these buildings are, however, much smaller than the prescribed size, and might be enlarged with great advantage, both for the purpose of providing suitable playgrounds for the pupils and of improving the lighting and ventilation of the building. As, however, the size of the site is usually limited by the amount of the appropriation, it will manifestly be impossible to improve this feature of our buildings unless larger appropriations can be secured.

The chief features of the schools, however, which have received the attention of this department, and in respect of which the recommendations above cited have not been complied with, are the heating and ventilation and the privy accommodations. The system of heating and ventilating which has been for years in general use (the so-called Smead system) is not, in the judgment of this department, satisfactory. The air supply is deficient in moisture, and unevenly distributed through the various rooms. Back drafts occur, which, while detrimental to proper ventilation at all times, are absolutely dangerous when the ventilating system is connected with the privy vaults, as is the case in many of the school buildings now in use. In those which have been erected since the recent appointment of a committee by the Commissioners, to investigate the heating and ventilation of school buildings, this system of vaults has been abandoned, and the water-closets which were introduced in the place thereof are practically separated from the general system of ventilation of the rest of the building; and it has been recommended by this department, March 19, 1897, that steps be taken looking toward the replacement of all such vaults by properly constructed water-closets. It is earnestly hoped that this recommendation can be carried out without delay.

Aside, however, from the matter of separating the heating and ventilating systems from the device for the disposal of excreta, it is desirable that present methods be replaced by the combined direct and indirect system of steam heating and mechanical ventilation. Recently erected buildings have been provided with facilities for mechanical ventilation, but the investigations of this department have shown that they are not at all times in use. Even in these buildings, however, it has not been possible to introduce steam heat because of the insufficiency of the appropriation. It is hoped that either by securing increased appropriations, or by economizing in other directions, it may be possible hereafter to introduce the improved methods of heating and ventilation suggested.

The investigation of the privy accommodations of the various schools in which this department was assisted by the inspector of plumbing showed 42 buildings provided with water-closets. In 16 of these such closets were located within the buildings, and in 26 they were in the yards. Dry closets were found within the buildings (the so-called Smead system of dry closets) in 39 instances, and in 17 box privies were located on the premises, but not within the building. The schools having box privies are, of course, county schools so located that sewer connections are impossible. Many of the buildings provided with the system of privy vaults formerly installed in connection with the so called Smead system of heating and ventilation, are, however, so located that sewer connections can be made and the vaults abandoned, which action as has been recommended above, should be taken as soon as possible. The investigation revealed some defects of more or less importance i

the plumbing of those buildings provided with sewer connections, which are, however, being remedied as rapidly as possible.

The recommendation of the Congressional committee above quoted was that water-closet accommodations for the pupils should be provided on each floor. Provision of accommodations of this kind would not only prove advantageous from a sanitary standpoint, but would tend to diminish the congregation of children about the closets, which is itself objectionable for moral reasons.

The investigation by the health department indicates the need of a superintendent of school buildings—whose duties might without harm be extended to the superintendence of all public buildings—who should have constant oversight of their general sanitary condition. This duty is now intrusted in each case to the principals of the buildings, and the general cleanly condition of the premises indicates that their duty is well performed. But these officials have not as a rule had the necessary technical or mechanical training to fit them for the performance of certain details of such work. For instance, it was found in one case that ventilators in a building had been permanently closed, but by whom or when or by whose authority no one could tell, the principal of the building not being aware of the condition until her attention was called to it. Similarly, defective plumbing was discovered in some cases which the principal of the building could not reasonably be expected to detect. The appointment of practical men having more or less technical education or training, to have general oversight of the condition of school buildings, would, it is believed, tend toward a better sanitary condition as to heating, ventilating, etc., and probably, by causing a more intelligent use of fuel and heat on the part of the janitors, result in a saving that would help to defray the cost of the service.

The proposed introduction of water filters into some of the school buildings, as authorized by an act of Congress approved March 3, 1897, must be considered more in the light of an experiment than in the view of a serious attempt to equip all such buildings with such appliances, as the amount so appropriated is manifestly too small for this purpose.

The recommendation contained in the last report of this department for the establishment of a medical inspection of schools is respectfully renewed, and an appropriation asked for that purpose. The necessity for this is indicated to a certain extent by the fact that in a single month, in the city of Boston, there were discovered in the public schools, by means of such inspection, 137 cases of contagious disease, and in all about 1,700 children who were too ill to remain at school.

Attention is also invited to the previous recommendation in reference to modifications in the present method of distributing schoolbooks and in the arrangement of the cloakrooms, which recommendations are also renewed.

INSPECTION SERVICE.

The inspection force of this department has been increased during the past year by the addition of a veterinary surgeon, who is by law designated as inspector of dairy farms and of live stock. The inspection service, therefore, embraces at the present time general inspection of nuisances, of foods, of drugs, of marine products, of live stock, and of dairies, dairy farms and dairy products, and the supervision of the collection of garbage and dead animals. In view of the scope and amount of this work, the appointment of a chief inspector is respectfully recommended, with a salary commensurate with the duties and responsibilities of the office.

A safeguard to the work of this department was secured in the passage of an act to punish the impersonation of inspectors of the health and other departments of the District of Columbia, approved March 2, 1897.

Nuisances.—As compared with the preceding year, the total number of nuisances reported and abated has diminished, having been 19,116 for 1896, while for the past year it has been but 16,587. This diminution has not been confined to any particular class, but has been generally distributed throughout the list.

TABLE K.—*Consolidated report of nuisances for the year ending June 30, 1897.*

Nature of nuisance.	1896.						1897.						Total.
	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.	
Alleys, filthy	20	7	16	3	4	12	.....	5	1	.....	12	17	97
Alleys needing repair	1	1	1	.....	.....	.....	.....	.....	.....	.....	1	1	5
Areas	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1
Ashes	30	18	14	34	21	19	11	31	62	23	24	13	300
Cellars	.....	.....	.....	.....	2	1	.....	.....	.....	.....	1	9	13
Drainage, surface	170	199	18	45	37	10	4	39	212	138	102	164	1,128
Garbage	19	11	3	.....	.....	1	.....	5	5	.....	6	21	71
Gutters	1	3	1	6	1	.....	.....	.....	.....	1	3	2	18
Hogpens	1	.....	.....	2	.....	.....	.....	.....	3	.....	4	.....	10
Houses, filthy	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	7
Houses unfit for habitation	1	.....	.....	.....	1	.....	.....	.....	.....	1	.....	4	7
Houses, slaughter	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1
Houses, no privy	7	2	6	2	.....	.....	.....	1	1	2	1	4	27
Hydrants	.....	2	1	2	.....	.....	.....	.....	2	.....	.....	.....	7
Lots, filthy	23	19	57	20	38	18	5	40	33	12	52	64	381
Lots, stagnant water	1	4	.....	.....	1	.....	.....	4	26	3	3	24	66
Manure	13	14	14	3	13	3	1	3	9	10	22	21	126
Markets, public	.....	.....	.....	.....	.....	7	2	.....	.....	.....	.....	.....	9
Miscellaneous	193	198	86	59	66	43	21	41	64	64	91	101	1,027
Pumps	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1
Pipes, water	11	13	9	5	2	7	3	5	4	7	8	14	86
Privies, filthy	468	593	614	434	389	281	209	334	420	238	450	467	4,897
Privies, dilapidated	3	.....	3	1	6	4	.....	1	1	1	1	6	27
Privies, full	434	548	596	431	378	271	206	313	396	273	413	428	4,627
Privies, leaky boxes	77	116	87	36	48	29	11	33	26	14	34	44	555
Roofs, leaky	.....	6	3	1	.....	12	.....	1	.....	3	.....	.....	26
Sewers	43	50	48	35	53	29	29	47	52	37	56	60	530
Sewer connection	18	10	15	6	33	16	7	19	88	154	63	43	472
Stables	6	15	12	10	7	4	2	3	10	4	34	21	118
Stables, cow	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	2
Streets, filthy	2	1	1	1	1	3	.....	1	1	2	3	3	19
Streets needing repair	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	1
Traps, sewer	21	11	5	3	11	2	.....	5	.....	.....	5	19	82
Yards	129	94	108	95	69	53	41	47	144	87	178	206	1,251
Yards, cow	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1
Vaults, privy	1	.....	.....	2	1	.....	.....	.....	1	.....	1	.....	6
Water-closets	54	59	42	34	52	25	36	38	59	33	38	55	545
Wharves	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1
Total	1,747	1,994	1,758	1,270	1,235	851	588	1,016	1,621	1,058	1,626	1,823	16,587

TABLE L.—*Consolidated report of nuisances for ten years ending June 30, 1897.*

ature of nuisance.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	Total
leys	199	166	200	235	345	350	221	424	248	102	2,490
eas	7	24	18	21	27	37	34	32	20	1	221
hes	.....	.....	.....	.....	757	1,488	1,894	1,102	516	300	6,057
llars	80	179	141	141	154	151	135	132	64	13	1,190
ainage	412	563	460	518	816	624	1,550	550	691	1,138	7,322
tters	42	17	21	72	19	46	86	49	36	18	406
rbage	238	221	74	72	44	531	92	170	301	71	1,814
gpens	3	17	44	57	48	40	79	26	14	10	338
uses, filthy	8	12	9	15	20	61	58	28	35	7	253
uses unfit for habitation	4	21	11	11	51	180	132	27	.....	7	444
uses, no privy	17	34	32	21	35	39	30	51	40	27	326
drants	67	101	123	156	92	80	120	114	30	7	890
ts, filthy	51	116	167	147	192	547	250	194	374	447	2,485
anure	579	629	676	599	523	192	109	236	191	126	3,860
iscellaneous	1,631	2,792	2,627	2,296	2,484	3,170	4,327	2,619	1,779	1,036	24,861
mpe	.....	.....	2	2	1	2	6	4	4	1	22
pes, water	127	84	75	144	209	251	325	319	89	96	1,729
nds, stagnant	46	90	70	116	220	143	48	17	106	.....	856
rivies, filthy	5,907	6,227	5,444	4,904	3,252	2,934	2,264	5,201	5,308	4,897	46,338
rivies, full	5,830	6,148	5,316	4,739	3,176	3,289	2,233	4,372	5,189	4,637	44,929
rivies, leaky boxes	675	661	800	547	465	348	247	746	973	555	6,017
rivies, dilapidated	58	87	55	30	62	145	63	230	95	27	852
oofs, leaky	3	9	38	12	17	37	85	21	4	26	252
wers	625	668	604	715	792	734	848	558	561	539	6,644
ewers, house connection	51	172	119	105	72	188	549	375	120	472	2,223
laughterhouses	.....	.....	5	7	9	2	7	5	2	1	38
tables	184	148	282	221	221	151	256	223	143	120	1,949
treets, filthy	2	1	12	3	7	80	17	33	43	20	168
rups, sewer	66	67	49	58	75	37	113	223	105	82	875
ards	1,726	1,826	1,786	1,637	1,931	2,816	3,333	2,240	1,288	1,251	19,834
ards, cow	14	116	14	5	19	9	1	31	23	1	233
aults, privy	12	7	6	5	23	10	1	2	6	6	78
Vater-closets	428	610	522	693	747	767	717	1,069	714	545	6,812
Wharves	.....	.....	.....	.....	.....	.....	.....	.....	4	1	5
Total	.....	.....	.....	.....	.....	.....	.....	.....	.....	16,587	192,701

The most serious difficulty with which the health department has at present to contend in securing the abatement of nuisances is, under the rulings of the court, the absence of liability on the part of the agent for the sanitary condition of the premises under his control unless specifically charged therewith by the owner; and it not infrequently happens that where the owner of the property does not reside within the District of Columbia, and limits the power of his agent to the collection of rents, when a nuisance occurs upon the property for which the owner and not the occupant is by law responsible the agent declines to receive notice to abate the same, or to give information as to the address of the owner, thus leaving the health department practically powerless.

The abatement of nuisance is also delayed, and in some cases practically prevented, where the title to the property is for any reason unsettled.

There not infrequently occur, therefore, conditions which undoubtedly constitute nuisances, and which are essentially in violation of law, but for the abatement of which the remedy provided by law fails. It is therefore respectfully recommended that authority be asked for the abatement of nuisances upon private property by or under direction of the District government whenever the owner of such property can not be found, the cost of such abatement to be assessed against the property as a tax, and to be collected in the same manner as other taxes are collected.

Under the act to provide for the drainage of lots, approved May 19, 1896, 800 sewer and water connections have been made. As in the case of the general-nuisance laws, difficulty is experienced in requiring the

connection of property belonging to nonresidents. For, while t
authorizes connections to be made in such cases, the cost thereo
assessed against the property, the only fund available for the pa
of such cost, in the first instance, is the emergency fund, which is
insufficient for the purpose, and the maintenance of which is so
tant as not to justify, in the judgment of this department, any
mendation for such use of any part of it.

In this connection attention is respectfully invited to the co
which arises from the present method of enforcing the payment of
rent by cutting off the water supply in case of default. While
above referred to requires water and sewer connections to be ma
former being practically necessary for the proper maintenance
latter, it occasionally happens that the water supply is cut off
government, thus creating nuisances which the owner or agent
times will not and the tenant can not abate. It is suggested, the
that from a sanitary standpoint it would be better if the wat
were assessed against the property and collected in the same m
as other taxes.

An important advance in the sanitary regulations of the Distr
made by the promulgation by the Commissioners, on April 19, 1
an amendment to the police regulations making it unlawful to
any part of any street-railway car or other public vehicle. And
more important advance was made by the promulgation thre
later of regulations governing the use and occupancy of buildin
grounds. Prior to the promulgation of the latter, the health d
ment was practically without authority over unsanitary con
existing within occupied buildings, although having the ri
abate such nuisances as might exist in open lots; but by these r
tions ample authority is, it is believed, granted, so far as lies witl
authority of the Commissioners.

Notwithstanding, however, the authority granted by these r
tions and by the various other laws in force in this District, a
number of dwellings exist which are totally unfit for occupatio
for the condemnation and removal of which there is no remedy.
condition was brought so forcibly to the attention of the Central
Committee in the course of its charitable labors during the past
that through its efforts a bill was prepared and presented to th
missioners which will, if enacted into law, provide the necessary
And as a means toward providing better accommodations for th
pants of such buildings as should and may be demolished, and s
encourage the erection of a better class of dwellings to be ren
reasonable rates to those in poor and moderate circumstances
has been organized through this committee a company for the p
of building such dwellings.

Smoke nuisance.—Under date of December 4, 1895, the Commis
directed the committee which had been previously appointed to i
gate the heating and ventilating of school buildings to include
scope of its investigations smoke-preventing devices and th
practicable method of doing away with the smoke nuisance fr
coal in the city of Washington. The committee, of which the
officer was a member, after giving the matter careful considerati
sented a report under date of January 16, 1897, together with th
of such legislation as was recommended in that report. This legis
in substantially the form proposed, was presented to Congr
3648), but was not acted upon owing to the adjournment on M
The same measure was again introduced upon the convening

Fifty-fifth Congress (S. 1085) and is now in the hands of the Committee on the District of Columbia.

While the smoke nuisance here has not yet attained such proportions as it has in some other places, the experience of such places should be accepted as a warning not to procrastinate. It has long been accepted as a basis of action by health officials that no one has the right to unnecessarily pollute the atmosphere to the detriment of the comfort, health, or property of any other individual or individuals. This principle has been applied to businesses and trades whereby offensive odors are generated to the detriment of the neighborhood. In the light of present knowledge in reference to the possibility of preventing smoke, there seems be no good reason why it should not be similarly applied to the generation of smoke, whether accompanied by foul odors or otherwise.

Foods.—The inspection of food properly embraces the inspection of dairies, dairy farms, and dairy products, of marine products, and of live stock, but in view of the differences which exist in the laws governing these subjects and in the methods of inspection they will be dealt with separately.

The amount of food condemned during the past year by inspectors of this department, and the relative amount of such condemnations for each of the past ten years, is shown in the accompanying tables.

TABLE M.—*Unwholesome food condemned during the year ending June 30, 1897.*

Articles.	1896.					
	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Beef.....pounds..	4,906	4,733	2,640	927	1,757	1,998
Mutton.....do....	2,274	2,374	1,718	368	1,215	1,210
Veal.....do....	887	783	553	94	410	225
Pork.....do....	1,339	1,738	1,264	332	1,627	1,107
Bacon.....do....	140	44	2,598	91	30	119
Sausages.....do....	165	468	263	57	265	304
Venison.....do....	.....	.....	.....	.....	.....	100
Chickens.....do....	176	185	68	50	61	518
Turkeys.....do....	.....	.....	.....	2	32	29
Ducks.....do....	.....	.....	.....	.....	5	35
Geese.....do....	.....	.....	.....	.....	2	2
Birds.....do....	.....	180	1,866	79	601	299
Rabbits.....do....	.....	.....	.....	144	1,196	1,035
Squirrels.....do....	.....	.....	.....	2	209	64
Apples.....bushels..	½	13	4	7	13	7
Peaches.....do....	102	52	86	11	.....	.....
Pears.....do....	2	.....	90½	14½	½	½
Plums.....do....	.....	.....	1	.....	.....	.....
Bananas.....dozen..	.....	1,047	.....	7	.....	34
Oranges.....do....	.....	.....	.....	.....	.....	4
Lemons.....do....	.....	12	3	5	.....	.....
Grapes.....pounds..	.....	1,025	4,732	1,560	3,820	1,280
Berries.....quarts..	1,877	430	.....	.....	62	.....
Cherries.....do....	.....	.....	.....	.....	.....	.....
Cantaloupes.....number..	6,620	10,580	1,568	.....	.....	.....
Watermelons.....do....	405	9,660	4,436	40	.....	.....
Pineapples.....do....	54	.....	.....	.....	.....	.....
Asparagus.....bunches..	120	.....	.....	.....	.....	.....
Beets.....do....	184	49	.....	12	.....	6
Carrots.....do....	.....	.....	.....	7	.....	.....
Celery.....do....	.....	.....	43	51	81	402
Radishes.....do....	166	.....	.....	.....	.....	.....
Rhubarb.....do....	.....	.....	.....	.....	.....	.....
Lettuce.....heads..	343	867	.....	25	.....	.....
Cabbage.....do....	2,137	3,905	1,648	291	535	409
Cymlings.....number..	2,548	2,219	251	30	.....	50
Eggplants.....do....	.....	760	742	66	380	450
Cauliflower.....do....	29	.....	.....	.....	157	220
Pumpkins.....do....	.....	.....	.....	.....	20	.....
Corn.....dozen..	533	1,500	310	36	.....	.....
Cucumbers.....do....	566	136	16	75	.....	18
Kale.....bushels..	.....	4	.....	581	17	16
Spinach.....do....	.....	.....	.....	.....	6	3
Parsnips.....do....	.....	.....	.....	.....	.....	.....

TABLE M.—*Unwholesome food condemned during the year ending June 30, 1897*—Cont'd.

Articles.	1896.					
	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Potatoes ..... bushels..	276	89	.....	10	3	.....
Pease ..... do....	41	1	.....	2½	1	.....
Beans ..... do....	57	18	2	.....	.....	33
Turnips ..... do....	.....	2	.....	.....	.....	.....
Tomatoes ..... do....	76	371	124	50	10	.....
Onions ..... do....	3	4	.....	.....	2	.....
Eggs ..... dozen..	248½	1,639	488½	187½	90	10
Miscellaneous fruits and vegetables.. bush..	95	82	73	27	52	57
Quinces ..... do....	.....	.....	.....	1	.....	.....
Opossums ..... number..	.....	.....	.....	.....	16	.....
Sauerkraut ..... quarts..	.....	.....	.....	.....	70	.....

Articles.	1897.						Total.
	Jan.	Feb.	Mar.	Apr.	May.	June.	
Beef ..... pounds..	897	1,610	4,493	3,170	3,722	3,483	34,326
Mutton ..... do....	568	926	1,908	1,841	1,321	1,474	16,837
Veal ..... do....	158	426	893	759	746	700	6,634
Pork ..... do....	586	1,160	2,699	1,895	1,411	1,375	16,533
Bacon ..... do....	8	188	75	61	182	95	3,631
Sausages ..... do....	92	254	750	397	176	224	3,415
Venison ..... do....	.....	.....	.....	.....	.....	.....	100
Chickens ..... number..	89	390	210	28	28	45	1,848
Turkeys ..... do....	16	17	6	.....	.....	.....	101
Ducks ..... do....	7	15	8	.....	3	.....	73
Geese ..... do....	7	5	.....	.....	.....	.....	19
Birds ..... do....	96	85	53	.....	.....	24	3,983
Rabbits ..... do....	197	81	.....	.....	.....	.....	2,643
Squirrels ..... do....	.....	.....	.....	.....	.....	.....	275
Apples ..... bushels..	6	5	1	4	5	1	66½
Peaches ..... do....	.....	.....	.....	.....	.....	1½	252½
Pears ..... do....	.....	.....	.....	.....	.....	.....	100
Plums ..... do....	.....	.....	.....	.....	.....	.....	1
Bananas ..... dozen..	30	.....	.....	.....	3	4	1,125
Oranges ..... do....	.....	.....	4	7	8	.....	23
Lemons ..... do....	.....	3	.....	.....	4	5	22
Grapes ..... pounds..	15	80	.....	.....	.....	.....	12,512
Berries ..... quarts..	.....	10	1,560	1,042	906	515	6,402
Cherries ..... do....	.....	.....	.....	.....	.....	61	61
Cantaloupes ..... number..	.....	.....	.....	.....	.....	200	18,761
Watermelons ..... do....	.....	.....	.....	.....	.....	.....	14,541
Pineapples ..... do....	.....	.....	.....	.....	31	19	101
Asparagus ..... bunches..	.....	.....	.....	74	70	94	358
Beets ..... do....	.....	300	106	86	299	28	1,070
Carrots ..... do....	20	.....	.....	.....	.....	.....	27
Celery ..... do....	406	268	230	256	20	.....	1,733
Radishes ..... do....	.....	.....	500	4,307	605	212	5,700
Rhubarb ..... do....	.....	.....	.....	18	74	33	125
Lettuce ..... heads..	107	1,211	4,170	3,010	1,160	1,263	12,156
Cabbage ..... do....	1,048	862	3,208	1,153	1,301	1,263	17,700
Cymlings ..... number..	.....	.....	.....	8	41	325	5,472
Eggplants ..... do....	428	.....	.....	.....	.....	.....	2,826
Cauliflower ..... do....	.....	1,740	600	.....	.....	.....	2,740
Pumpkins ..... do....	.....	.....	.....	.....	.....	.....	20
Corn ..... dozen..	.....	.....	.....	.....	.....	88	2,467
Cucumbers ..... do....	.....	100	.....	.....	207	474	1,502
Kale ..... bushels..	3	26	180	35	11	.....	873
Spinach ..... do....	2	.....	.....	.....	1	.....	12
Parsnips ..... do....	1	.....	.....	.....	.....	.....	1
Potatoes ..... do....	97	70	12	1	6	.....	564
Pease ..... do....	.....	.....	38	26	108	51	268½
Beans ..... do....	2	2	.....	4	8	22	140
Turnips ..... do....	13	3	.....	.....	5	.....	23
Tomatoes ..... do....	9	9	.....	.....	½	12	661½
Onions ..... do....	.....	.....	.....	.....	2	.....	11
Eggs ..... dozen..	30	2	.....	.....	.....	.....	2,695½
Miscellaneous fruits and vegetables. bush..	46	84	186	156	173	175	1,186
Quinces ..... do....	.....	.....	.....	.....	.....	.....	1
Opossums ..... number..	.....	.....	.....	.....	.....	.....	16
Sauerkraut ..... quarts..	.....	.....	.....	.....	.....	.....	70

E N.—*Unwholesome food condemned for ten years ending June 30, 1897.*

Articles.	1888.	1889.	1890.	1891.	1892.
..... pounds..	20,534½	20,990	28,504	13,169½	18,785
..... do....	2,736	5,773	7,160	5,233	5,614
..... do....	15,693	15,954	16,244	11,570	14,560
and pork..... do....	2,533	2,218½	4,536	4,850½	9,877
s, and squirrels..... number..	2,980	2,950	6,998	3,030	3,249
..... do....	9,722	8,226	5,874	4,310	3,984
..... dozen..	250	40	738½	.....	547
utter..... pounds..	10	.....	.....	.....	.....
parsnips..... bushels..	1,191½	463½	1,057½	381½	732½
, and onions..... do....	838½	1,328½	917½	236½	348
lettuce..... heads..	43,169	36,662	43,507	29,529	18,904
l pumpkins..... number..	5,584	4,449	6,912	5,479	4,722
..... dozen..	2,529½	1,506	2,394	1,633	1,341
..... do....	5,876	4,665	6,848½	5,656	2,596½
..... number..	6,924	2,993	1,961	3,958	2,353
l turnips..... bushels..	1,256½	1,191	1,012	1,110½	1,063½
nach..... do....	1,787½	412½	907½	294½	444
hes, pears, and plums..... do....	917½	881	824½	286½	1,089½
..... number..	16,543	5,721	11,446	9,608	19,830
..... do....	22,712	13,501	11,739	8,815	15,528
..... quarts..	3,793	9,852	4,937	6,618	5,742
lemons..... dozen..	3,310½	1,594	520	521	371½
..... do....	5,500	440	354	1,652	984
..... pounds..	3,929	3,368	3,349	3,014	7,860
s fruits and vegetables..... bushels..	1,993½	3,166	2,479½	1,986½	691½
s vegetables..... bunches..	11,446	11,454½	13,043	10,098	14,213

Articles.	1893.	1894.	1895.	1896.	1897.	Total.
..... pounds..	20,583½	15,963½	20,092	33,854	34,336	226,812½
..... do....	3,620	2,372	3,123	5,338	16,837	57,806
..... do....	11,906½	6,084½	11,724	19,443	6,634	129,813
nd pork..... do....	5,654½	2,423	8,085	21,018	23,579	84,774
s, and squirrels..... number..	2,059	2,605	3,683	3,367	6,201	37,131
..... do....	6,275	1,191	1,724	2,220	2,039	45,565
..... dozen..	269	605	2,377½	2,492½	2,695½	10,015
utter..... pounds..	.....	.....	.....	.....	.....	10
parsnips..... bushels..	1,787½	216½	245	324½	565	6,965½
and onions..... do....	828	339½	802½	661½	427	6,727½
lettuce..... heads..	30,435	20,071	17,021	37,003	29,916	306,217
l pumpkins..... number..	8,544	9	50	35	5,492	41,276
..... dozen..	980½	951	1,178½	1,690	2,467	16,730½
..... do....	5,832½	2,060½	3,402	1,971	1,592	40,500
..... number..	5,160	3,485	4,443	5,712	2,826	39,815
d turnips..... bushels..	354	389½	419½	732½	684½	8,213½
nach..... do....	390½	600½	457	410	885	6,588½
hes, pears, and plums..... do....	191	744½	295	546½	428	6,204½
..... number..	1,625	3,184	2,947	3,248	14,541	88,693
..... do....	6,449	15,367	13,467	20,788	18,761	147,127
..... quarts..	6,236	4,993	3,694	6,848	6,402	58,615
lemons..... dozen..	231	143	2,375	116	55	9,237½
..... do....	316	3,516	1,969	669	1,125	16,525
..... pounds..	2,958	3,325	5,748	12,234	12,512	58,297
s fruits and vegetables..... bushels..	571	520	1,953	1,911½	1,197	16,452
s vegetables..... bunches..	15,308	16,372	19,545	28,290	9,122	148,891½
..... number..	.....	.....	.....	.....	16	16
..... pounds..	.....	.....	.....	.....	100	100
..... quarts..	.....	.....	.....	.....	70	70
..... do....	.....	.....	.....	.....	61	61
..... number..	.....	.....	.....	.....	2,746	2,746
..... do....	.....	.....	.....	.....	101	101

ition to the work shown in the preceding table, which repre-
at is more commonly considered within the scope of food
ns, there have been analyzed in the chemical laboratory 42
of vinegar, 10 of salad oils, 3 of butter, 2 of flour, 8 of cream
, 1 of baking powder, and 42 of confections. Of the samples
ir analyzed, 35 were purchased as cider vinegar, but upon
only 10 were found to be so, the remainder consisting of malt
nd various other forms of the manufactured product. The
dealers were prosecuted in the police court, and convictions

secured in 21 cases. Of the ten samples of salad oils, 9 of which were purchased as pure olive oil, 6 were found to be derived from cotton seed. Prosecutions were brought in 5 cases, and convictions followed. Eight samples of alleged cream of tartar were purchased and analyzed. In two instances the article sold was found to be a substitute, and prosecutions and convictions followed.

An investigation was made during the year into the character of the confections ordinarily sold in this District; and while in one instance sticks of candy were found to be made up entirely of flour and sugar of milk, and in another chocolate drops turned out to be flour coated with brown clay, with just enough sugar to give it a sweetish taste, and in a third gum drops were found to contain lampblack, it may be said in general that the materials employed in the manufacture of candy offered for sale here, as far as may be learned from the investigation made, are not such as would be considered injurious to health; although, as the chemist expresses it, it must be conceded that some of those mentioned above might well be dispensed with.

An effort was made during the past year to secure the passage of a more efficient law relating to the adulteration of foods and drugs in the District of Columbia (H. R. No. 9842, Fifty-fourth Congress). This bill passed the House but was not considered in the Senate. It was, therefore, introduced in the Fifty-fifth Congress (S. No. 471), and has passed the Senate. An attempt was also made to secure the passage of an act to prevent specifically the adulteration of candy (H. R. No. 8679, Fifty-fourth Congress). This bill having failed to pass has been introduced in the present Congress (H. R. No. 409), and is now awaiting consideration.

Drugs.—Owing to the manifold duties devolving upon the chemist, it has only been possible to devote a very limited amount of attention to the inspection of drugs. Four samples of the tincture of the chloride of iron were analyzed and found to be up to standard and free from impurities. The same may be said of one sample of powdered opium and one of precipitated chalk. But of eight samples of so-called precipitated sulphur, one was found to consist entirely of sublimed sulphur and another contained somewhat over 20 per cent of sulphate of calcium; and while, as seems probable from the small selling price of this article, the adulterations were possibly due to accident either in preparation or dispensing, as the injury to the purchaser would have been quite as great as if there had been intentional fraud, prosecutions and convictions followed in each case.

As a subject more or less closely allied to drug inspection, attention is invited to the need of amendment to the law now in force regulating the sale of poisons. Several bills for this purpose were introduced during the Fifty-fourth Congress (H. R. No. 9902, 9980, 10038, and 10332). As none of these became laws, a bill for the same purpose has been introduced into the present Congress (S. No. 470) and is now under consideration.

Marine products.—The usual statement as to the quantity of marine products inspected and condemned during the year will be found in Table L.

TABLE L.—*Inspections and condemnations of marine products for year ending June 30, 1897.*

Articles.	1896.					
	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Inspections.						
Oysters.....bushels..	1,550	2,100	28,400	50,874	59,300	71,600
Clams.....number..	727,000	659,000	345,000	149,000	102,000	32,000
Crabs.....do....	318,900	358,800	119,700	17,100	.....	.....
Mackerel.....do....	9,240	12,010	4,597	.....	.....	.....
Sheepshead.....do....	11	57	.....	.....	.....	.....
Striped bass.....bunches..	.....	.....	.....	.....	.....	.....
Bluefish.....do....	.....	.....	.....	.....	.....	.....
Croakers.....do....	.....	.....	.....	.....	.....	.....
Eels.....do....	.....	.....	.....	.....	.....	.....
Sturgeon.....number..	157	91	15	.....	.....	.....
Pike.....bunches..	.....	.....	.....	.....	.....	.....
Perch, yellow.....do....	.....	.....	.....	.....	.....	.....
Perch, white.....do....	.....	.....	.....	.....	.....	.....
Trout.....do....	.....	15	.....	.....	.....	.....
Catfish.....do....	.....	.....	.....	.....	.....	.....
Mullets.....do....	.....	.....	.....	.....	.....	.....
Turtles.....number..	7	3	.....	.....	.....	.....
Spots.....bunches..	.....	.....	.....	.....	.....	.....
Drumfish.....number..	.....	.....	19	.....	.....	.....
Chubs.....bunches..	.....	.....	.....	.....	.....	.....
Carp.....number..	.....	.....	6	80	254	199
Flounders.....bunches..	.....	.....	.....	.....	.....	.....
Shad, winter.....do....	.....	.....	.....	.....	.....	.....
Shad.....number..	.....	.....	.....	.....	.....	.....
Butter-fish.....bunches..	.....	.....	.....	.....	.....	.....
Black bass.....number..	.....	.....	.....	.....	15	264
Herring.....do....	.....	.....	.....	.....	.....	.....
Hickory-jacks.....do....	.....	.....	.....	.....	.....	.....
Porgies.....	.....	343	.....	.....	.....	.....
Fish.....bunches..	42,354	51,628	37,647	29,260	38,009	17,482
Halibut.....pounds..	.....	.....	.....	45	.....	.....
Condemnations.						
Oysters.....bushels..	.....	.....	1,350	.....	.....	.....
Clams.....number..	13,526	14,400	9,100	9,600	7,700	1,000
Crabs.....do....	61,025	59,300	36,100	6,800	.....	.....
Fish.....bunches..	1,477	1,781	1,085	2,618	1,654	284
Turtles.....number..	.....	.....	.....	.....	.....	.....
Drumfish.....do....	.....	.....	2	.....	.....	.....
Sturgeon.....do....	6	.....	.....	.....	.....	.....
Herring.....do....	.....	.....	.....	.....	.....	.....
Shad.....do....	.....	.....	.....	.....	.....	.....
Hickory-jacks.....do....	.....	.....	.....	.....	.....	.....
Carp.....do....	.....	.....	.....	.....	.....	.....
Trout.....do....	16	.....	.....	.....	.....	.....
Halibut.....pounds..	.....	.....	.....	45	.....	.....
Sheepshead.....number..	.....	.....	.....	.....	.....	.....

Articles.	1897.						Total.
	Jan.	Feb.	Mar.	Apr.	May.	June.	
Inspections.							
Oysters.....bushels..	48,300	44,000	38,700	20,300	4,700	1,600	371,484
Clams.....number..	.....	.....	.....	250,000	679,000	501,400	3,444,400
Crabs.....do....	.....	.....	.....	90,500	54,400	124,132	1,083,532
Mackerel.....do....	.....	.....	.....	.....	.....	5,375	114,382
Sheepshead.....do....	.....	.....	.....	.....	8	393	469
Striped bass.....bunches..	.....	.....	.....	.....	.....	.....	.....
Bluefish.....do....	.....	.....	.....	.....	.....	.....	.....
Croakers.....do....	.....	.....	.....	.....	.....	.....	.....
Eels.....do....	.....	.....	.....	.....	.....	.....	.....
Sturgeon.....number..	.....	.....	.....	15	175	157	610
Pike.....bunches..	.....	.....	.....	.....	.....	.....	.....
Perch, yellow.....do....	.....	.....	.....	.....	.....	.....	.....
Perch, white.....do....	.....	.....	.....	.....	.....	.....	.....
Trout.....do....	.....	.....	.....	.....	.....	.....	15
Catfish.....do....	.....	.....	.....	.....	.....	.....	.....
Mullets.....do....	.....	.....	.....	.....	.....	.....	.....
Turtles.....number..	.....	.....	.....	.....	16	82	108
Spots.....bunches..	.....	.....	.....	.....	.....	.....	.....
Drumfish.....number..	.....	.....	.....	.....	.....	45	64
Chubs.....bunches..	.....	.....	.....	.....	.....	.....	.....
Carp.....number..	416	191	1,097	384	632	122	3,381
Flounders.....bunches..	.....	.....	.....	.....	.....	.....	.....
Shad, winter.....do....	.....	.....	.....	.....	.....	.....	.....

TABLE L.—*Inspections and condemnations of marine products, etc.*—Continued

Articles.	1897.						Total
	Jan.	Feb.	Mar.	Apr.	May.	June.	
Inspections—Continued.							
Shad.....number.	.....	.....	190,593	182,164	22,794	1,444	396,995
Butter-fish.....bunches.	.....	.....	.....	.....	.....	.....	.....
Black bass.....number.	369	1,375	937	151	.....	8	3,119
Herring.....do.	.....	45,680	1,340,600	5,974,000	2,163,600	13,800	9,537,680
Hickory-jacks.....do.	.....	.....	3,410	4,385	.....	.....	7,795
Porgies.....do.	.....	.....	.....	.....	85	157	585
Fish.....bunches.	16,598	21,532	38,895	33,559	79,750	62,764	459,478
Halibut.....pounds.	.....	.....	.....	.....	.....	.....	45
Condemnations.							
Oysters.....bushels.	.....	.....	510	160	50	3	2,073
Clams.....number.	.....	.....	.....	5,600	18,084	17,500	96,510
Crabs.....do.	.....	.....	.....	83,000	12,500	25,722	284,447
Fish.....bunches.	93	957	1,569	3,090	1,341	671	16,629
Turtles.....number.	.....	.....	.....	.....	.....	6	6
Drumfish.....do.	.....	.....	.....	.....	.....	.....	2
Sturgeon.....do.	.....	.....	.....	.....	.....	.....	6
Herring.....do.	.....	.....	.....	491,000	659,200	.....	1,159,200
Shad.....do.	.....	.....	.....	.....	156	.....	156
Hickory-jacks.....do.	.....	.....	.....	78	.....	.....	78
Carp.....do.	.....	.....	.....	.....	17	.....	17
Trout.....do.	.....	.....	.....	.....	.....	.....	16
Halibut.....pounds.	.....	.....	.....	.....	.....	.....	45
Sheepshead.....number.	.....	.....	.....	.....	5	.....	5

Attention is again invited to the condition of the fish wharf, at which all marine products coming into the District by water are by law required to be landed. This wharf is the property of the District, and is leased to the highest bidder. It is therefore, or should be, a source of revenue. Upon it are unloaded each year millions of oysters, clams, crabs, and fish of various kinds. A very large number of them are condemned without leaving the wharf, and a very considerable portion of the remainder is shucked or cleaned before removal. There is, therefore, an enormous quantity of condemned material and offal which must be disposed of each day during the fish season, material which constitutes during decomposition one of the most offensive forms of refuse. The handling and cleaning of these fish, etc., requires also the use of a very considerable quantity of water, some, after being fouled, finding its way into the river, but much soaking into the surface of the wharf, which is made up of earth and wood. As if to hasten the decomposition which is going on in the condemned fish, offal, and filth saturated earth and planks the wharf is without shelter of any sort, so that the sun's rays find ready access. The entire place is very naturally a source of complaint, especially during the fish season.

It is, therefore, respectfully recommended that this fish wharf be equipped with suitable conveniences for carrying on the traffic which is by law limited to it. It should be provided with an impervious surface, properly graded and guttered, to permit the free and rapid discharge into the river of all liquid falling thereon, and with shelter to exclude the direct rays of the sun. Properly constructed benches, provided with suitable receptacles for offal, should be constructed, as should also a building for the reception of condemned fish and accumulated offal pending its removal to the place of final disposal.

Live stock.—Through the provision, during the past year, of a sanitary and food inspector who must be a veterinary surgeon, and shall act as inspector of live stock, the health department has been able to devote some attention to this branch of the inspection service for

the first time in many years. The general character of stock killed was good, most of the diseases found being such as would not render the carcass, or all of it, unfit for food. The greatest prevalence of serious disease was found in cows which, having been condemned for dairy purposes, were disposed of for slaughter for use as food. While it is true that some such animals might be unfit for the former purpose and yet used with impunity for the latter, trade of this sort demands the closest scrutiny.

In view of the fact that after slaughter and dressing for market, it is in many cases extremely difficult, if not impossible, to determine whether meat has or has not come from diseased animals, it is practically necessary that the inspection be made before or at the time of killing. With the limited force at the command of this department, such inspection as has been made has extended to only a very small portion of the stock actually killed; and in fact without an unreasonable increase in the number of live stock inspectors, it can not be otherwise unless there be provided a public abattoir and all slaughtering confined thereto, or unless private slaughterhouses be put under the most rigid restrictions as to time of killing, etc. As it is believed that the former method is preferable, the recommendation contained in the annual report of this department for 1895, for the establishment of a public abattoir, is respectfully renewed.

Inspection of dairies and dairy products.—One of the most important duties of the health department is the supervision of the milk supply. Milk is the single article of human food of animal origin which is habitually taken in its raw state. It is subject to rapid chemical changes, which not only interfere with its food value, but render it capable of producing the most serious results. It is the constant diet of infants and invalids. And its gross appearance up to the time of palpable souring affords the prospective purchaser practically no information as to its value. For these reasons it is important that the milk supply of any community receive the closest attention from those whose duty it is to care for public health. The method of inspection employed by this department consists of (1) the inspection of the places where the milk is produced, known as dairy farms; (2) the inspection of the places where it is kept for sale, known as dairies, and (3) the examination of the milk as it is offered for sale.

Three series of permits are issued in connection with this system of inspection: (1) Dairy farm permits, authorizing the holders to maintain dairy farms within the District of Columbia—that is, to keep cows for the production of milk for sale; (2) dairy permits, granting the right to engage in the selling of milk as a business; (3) importers' permits, granting the right, under certain conditions, to bring or send milk into the District of Columbia. During the year 49 dairy-farm permits were granted, 34 were refused, and 188 remained in force at the close of the year. Of dairy permits, 155 were granted, 36 were refused, and 540 remained in force. Importers' permits were issued in 95 cases, none were refused, and 496 were outstanding at the close of the year.

Inspection of dairy farms.—Some idea of the difficulties connected with the regulation of the milk traffic may be obtained from the statement that the milk supplied from the adjoining States comes from 9,317 cows, owned by 510 farmers, and that from the District comes from 1,356 cows, owned by 194 farmers. There are, therefore, engaged in the milk business of this District, as producers, 704 persons with 10,673 cows.

In the inspection of the dairy farms the examination of the cattle is,

of course, intrusted to veterinary surgeons. Cattle in the District are examined by an inspector from this department. Those in the adjoining States are examined by veterinarians employed by the farmers, certificates showing the result of such examinations being filed with the application for permission to bring or send milk into the District. The inspection of cattle within the District is made periodically. The examination of those in the adjoining States is required only once, as a preliminary to the issue of an importer's permit; if any secondary examinations of such cattle are made, the result is never reported to the health department. In neither instance is the tuberculine test used, not because of any lack of confidence on the part of this department, but because of the lack of the necessary funds.

The result of the examination of cattle as outlined above, taken as a whole, has been very unsatisfactory. Outside of the District the veterinarian acts as the agent of the farmer; within the District he is the agent of the people who use the milk. The difference in the result is shown by the difference between the percentage of cows which have been condemned by veterinarians in the adjoining States as reported by them, and the percentage of condemnations within the District by the inspector of the health department. In the primary examination of 9,317 cows in the adjoining States by local veterinarians, 52 were condemned, being 0.56 per cent, while in the primary inspection of 1,356 cows within the District, by the health department, 35 or 2.59 per cent were condemned. The unreliable character of the inspection in the adjoining States, and the fact that diseased cows do exist there in no inconsiderable number, is shown by the fact that of the 52 cows reported as bad, 45 were reported by a single veterinarian, one whose education and professional standing leave no doubt as to the accuracy of his observation and correctness of his judgment. These facts are further emphasized by the discovery in 23 herds in those States, upon inspection by this department, of 23 cattle unfit for dairy purposes. The statement of these figures may seem harsh. They are, however, taken from the official records. This department can not help drawing from them the conclusion that while an official inspector from the health department interprets the results of his examination of a cow from the standpoint of public health, the veterinarian in the service of the farmer is inclined to attach too much weight to the commercial aspects of the case.

The inspection of the dairy farms themselves is upon the same basis as the inspection of the cattle. Those in the District are inspected periodically by this department, while no inspection whatsoever is made of those in the States. In the case of the latter, the health department depends upon the statement of the applicant for an importer's permit, at the time of making application. After such permit has been granted, the condition of the farm and cattle is beyond the knowledge of the department. The difference in the result is shown by the fact that while 40 per cent of the dairy farms inspected by the health department during the past year were found to be in such condition as to necessitate the refusal of permits for their maintenance, in not one instance in which the farm was located in a State, and its condition reported by the applicant, have any conditions existed which would justify the refusal of a permit to bring the milk there produced into the District.

It is not possible to believe that the condition of the dairy farms and of the cattle in Maryland and Virginia is so much superior to that of those in the District of Columbia, as would appear from the figures which have been given, even after taking into consideration the fact that many of the dairy farms in the District are small tracts lying

within the city or its suburbs. The only conclusion which seems possible is that the people of the District are drinking a very considerable quantity of milk from diseased cows, and even more from cows which are subjected to the influences of unsanitary surroundings, and whose milk is kept for a greater or less time in such surroundings. The remedy for this condition would not be far to seek if it were possible to examine the milk and to determine therefrom the condition of the cow or cows from which it was taken, and the character of the surroundings. As, however, this can not be done, the only remedy lies in the appointment of a sufficient number of inspectors to investigate from time to time the dairy farms in the adjoining States. The right to do this is conceded by each applicant for an importer's permit, and his permit is issued subject to this condition.

Such an inspection as might be made under the present law if the necessary force were furnished would be sufficient if all producers of milk could be relied upon to discontinue the sale of milk from diseased cows when they were pointed out by the inspector. But there is no reason to believe that such would be the case, the probabilities being that in some instances the farmer would, as soon as the inspector was out of sight, resume the use of such milk. The remedy seems to lie in the tagging and registration of all cows supplying milk for this District as soon as possible after they are put to such use. The inauguration of such a system would involve a considerable outlay of time and money, but after that the cost of its maintenance in connection with a proper system of inspection of the farms (which is essential in any case) would not be prohibitive. Legislation to this end was proposed at the recent sessions of Congress (H. R. No. 9645, Fifty-fourth Congress; S. No. 1084, Fifty-fifth Congress) and met with considerable opposition from some of the milk dealers and producers, the chief argument being that tagging and registration of the cows would not prevent them from having acute diseases, and bad milk thus finding its way into the markets. But this hardly constitutes a valid reason why effort should not be made to prevent the sale of milk from cows suffering from chronic diseases. I am convinced that some such method must be adopted if the sale of milk from diseased cows is to be checked, or it must be made prima facie evidence of the sale of milk from such cows if they be found in the herd from which milk is taken for sale.

Whether either of these methods be adopted or not, it is evident that no satisfactory result can be obtained unless provision be made for the inspection of dairy farms in the adjoining States by representatives of this department. As a beginning toward this end, one additional inspector is asked for for this purpose, with such increase in the contingent fund as is necessary to pay for traveling expenses.

Inspection of dairies.—The inspection of places where milk is kept or offered for sale is now made a part of the duty of the inspector of dairy products. While the assignment of this work to him has necessarily diminished the amount of work done in the chemical laboratory, the result, as shown in the improved sanitary condition of the dairies, has amply compensated for this loss. Watered milk and skimmed milk are not nearly so dangerous, from a sanitary point of view, as is dirty milk, and this condition is best prevented by requiring proper facilities for storing and selling it. An earnest effort is being made in this direction, through the enforcement of the dairy regulations.

So far as relates to the milk traffic itself—that is, independently of the production of milk—the most important indication to be met at the present time is the regulation of the temperature of the milk during storage and sale. The rapidity with which it undergoes changes, when

kept at a favoring temperature, and the serious results which frequently follow the use of milk which has undergone such changes fully warrant legal measures to secure its preservation under proper conditions until delivered to the consumer—that is, to require the immediate cooling of the milk after milking to a temperature not exceeding 60° F. and its maintenance at this temperature until the time of its delivery. As at present, in some cases owing to ignorance and in others because of the slight additional expense involved, much of the milk which is sold is not kept in this condition it is recommended that legislation be secured to require this to be done.

Analysis of milk.—There have been analyzed during the year 244 samples of milk, 6 of cream, 13 of condensed milk, and 1 of "evaporated cream."

Of the entire number of samples of milk which have been analyzed 7.4 per cent had been watered, 10.25 per cent had been skimmed, and 3 per cent had been both watered and skimmed; 20.65 per cent of the entire number had been tampered with. Of the samples collected by this office from railroad stations 11 per cent were adulterated, while of those collected at random throughout the city 28 per cent had been tampered with, from which it is apparent that much of the sophisticated milk sold in the city is the product of local enterprise.

The average composition of 193 samples of pure milk is shown in the following table:

Average composition of milk in the District of Columbia 1896–97.

Months.	Samples.	Total solids.	Fat.
1896.			
July	0	0	0
August	9	12.79	3.74
September	111	12.91	3.85
October	1	13.95	4.20
November	2	12.68	3.55
December	31	13.19	3.85
1897.			
January	10	12.95	3.89
February	1	12.78	3.89
March	0	0	0
April	3	12.57	3.59
May	2	13.53	4.10
June	23	13.03	3.96

The poorest unadulterated sample was collected June 11, 1897, and showed 11.85 per cent solids and 3 per cent fat.

The analyses of cream showed an average of 16.44 per cent butter fat. In the absence of any fixed legal standard for this article it is impossible to state just when a given sample should be classed as cream, except from the name given it by the seller. Purchasers of this article under contract are, of course, able to protect themselves by specifying a cream containing a given percentage of fat, but the private consumer is at the mercy of the dealer. It is respectfully recommended that the standard of cream be fixed by law as 20 per cent butter fat.

The analysis of condensed milk was undertaken largely because of a belief that the cheaper brands of this article were made of skimmed milk. In the examination of 14 samples, all of the cheaper grades, there was no evidence found to support this idea. The cheapness is brought about by the free admixture of sugar, but in the absence of any

legal standard for condensed milk this can not be considered as an adulterant. No preservatives (except sugar) were found, except in one sample labeled "Evaporated Cream," which contained boric acid.

GARBAGE AND DEAD ANIMALS.

The amount of garbage collected during the past year was 18,928 tons, an increase of 1,658 tons since last year. The average collection per thousand inhabitants per annum was therefore 68.34 tons, and the average collection per day 51.84 tons.

The number of dead animals collected was 7,161, being 551 less than during the year 1895–96, and an average of 19.62 per day.

The total number of complaints of improper collection of garbage or dead animals was 763, an average of 2.09 per day. In view of the fact that approximately 40 per cent of these complaints were found to originate from causes over which the garbage contractor had no control, the service, so far as collection was concerned, has been very satisfactory.

The same can not be said, however, in reference to disposal. The Brown garbage crematory, at the foot of South Capitol street, the operation of which, from a sanitary standpoint, has been satisfactory, has been closed for about six months because of business differences between the contractor for the collection and disposal of garbage and the builder of the furnace; and the Smith crematory which was erected on square 63, and began operations January 26, 1897, has been the source of much complaint, some of which, in the opinion of this department, have not been altogether without foundation. The result has been that during a greater part of the year garbage which should have been cremated has been disposed of by the method formerly in vogue, viz, removal in open scows to the banks of the Potomac, beyond the limits of the District of Columbia, for use by the farmers, it is alleged, as a fertilizer. And while the smaller dead animals have been burned, no serious attempt has been made to do this with the larger sorts.

The cost of the above service as by the contract has been $57,000, of which $55,974 has been paid to the contractor, $1,022 to inspectors appointed by the Commissioners for duty in connection with the garbage service, and $4 deducted for neglect. The cost, therefore, to the District for the collection and disposal of garbage and dead animals per thousand inhabitants per annum has been $205.80, and the cost per collection over the entire collection area has been approximately $260. The cost per thousand inhabitants per collection has been but 94 cents.

TABLE P.—*Offal removed during the year ended June 30, 1897.*

Months.	Dead animals.	Garbage.	Night soil.
1896.	*Number.*	*Tons.*	*Barrels.*
July	173	1,602¾	920
August	1,375	1,776½	940
September	871	2,139	890
October	383	1,404½	810
November	428	1,260	690
December	436	1,368¼	590
1897.			
January	363	1,001½	405
February	370	1,335½	410
March	608	1,825½	354
April	710	1,619½	519
May	763	1,765½	591
June	681	1,830½	640
Total	7,161	18,928¾	7,759

TABLE Q.—*Offal removed for fifteen years ended June 30, 1897.*

Year.	Dead animals.	Garbage.	Night soil.	Year.	Dead animals.	Garbage.	Night soil.
	Number.	*Tons.*	*Barrels.*		*Number.*	*Tons.*	*Barrels.*
1883	6,560	9,884	14,507	1891	9,910	24,683	19,671
1884	6,433	12,950	16,896	1892	10,528	22,039	18,640
1885	8,876	12,930	23,827	1893	9,649	14,814	15,725
1886	8,808	14,897	24,244	1894	10,340	14,172	11,284
1887	9,120	15,612	21,941	1895	7,512	23,227½	9,720
1888	7,863	20,136	19,742	1896	7,712	17,270½	11,208
1889	7,954	27,034	21,669	1897	7,161	18,928½	7,759
1890	8,344	23,914	20,554				

TABLE R.—*Statement of garbage and dead-animal service from July 1, 1896, to June 30, 1897.*

[Joshua N. Warfield, contractor.]

		Total.	Average per day.	Average per 1,000 inhabitants.
Garbage collected	tons	18,928½	51.84	68.34
Dead animals collected	number	7,161	19.62	.....
Complaints	do	763	2.09	.....
Cost total amount of contract		$57,000.00	.....	.....
Cost per ton		$3.01	.....	.....
Cost per collection		$259.95	.....	$0.94
Deductions:				
Pay of inspectors	$1,022.00			
Fines	4.00			
		$1,026.00	.....	.....
Daily service:				
Vehicles in service		.....	56	.....
Horses in service		.....	62	.....
Men in service		.....	56	.....
Semiweekly service:				
Vehicles in service		.....	30	.....
Horses in service		.....	36	.....
Men in service		.....	30	.....

COLLECTION OF REFUSE.

Mention having just been made as to the collection and removal of garbage and dead animals, attention may properly be invited at this point to the urgent necessity for the collection of all sorts of refuse by the government. The health of a community depends quite as much upon municipal cleanliness as does the health of the individual upon personal hygiene, yet this District makes no provision for the removal or disposal of refuse other than garbage, dead animals, and street sweepings (except, of course, as is provided by the system of sewers). There remains a large amount of material over and above these, as night soil, ashes, general refuse from dwellings and stores, etc., for the removal and disposal of which each citizen is left more or less to his own devices.

Night soil.—The collection of night soil is entirely a matter of private enterprise, the only restriction being the requirement that it shall be removed and transported so as to prevent it from being agitated or exposed to the open air, and that it shall not be deposited in any place not approved by the health department. The business is at present entirely in the hands of a single individual, who collects such material and disposes of it in pits located at an isolated point on a branch of the Potomac some distance below the city. The usual amount charged for removal is $1 per barrel, which usually represents the contents of a single box. There were removed during the year just ended 7,759 barrels, which, as shown by the reports of the collector, is the smallest annual collection recorded within the past fifteen years, the amount for

receding year having been 11,300 barrels. It is of course difficult termine to what extent this decrease is due to the replacement of ng box privies by water-closets, but it is probably partly accounted this manner.

is interesting to compare the amount of night soil removed ally with the number of box privies in the District of Columbia licated by the house-to-house inspection made in 1893–94 under ion of Health Officer Hammett. If, as shown by that inspection, were 8,959 privies within the city of Washington, and a total of within the entire District, the number of barrels of night soil ted as removed during that year, 11,284, indicates that a very derable number were not cleaned more than once during the year, if a certain amount of such work was done by persons other than gular collector. The same condition apparently prevailed both and after that period.

very general neglect of persons using box privies to cause the to be properly cleaned, except under compulson, is further shown e fact that during the year 1894–95 there were 9,720 barrels of soil removed, of which 4,372, or 45 per cent, were removed as the of notices from the health department. During the following of 11,300 barrels removed, 5,189, or 46 per cent, were removed as sult of notices, and during the year just ended, of 7,759 barrels ed, 4,637, or 60 per cent, were removed under compulsion.

general character of the structures themselves used for privy ses is shown by the inspectors' reports, which indicate that dur- e past year 4,897 were filthy and 555 had leaky boxes.

remedy for the condition described above appears to be the col- n of night soil by the government, either under contract or by abor, combined with a system of registration of privies. Each should be emptied regularly, whether full or not, just as in the of garbage receptacles; and if the work were done under the vision of the government, each such place would be inspected as as cleaned, and its maintenance in proper condition could be ed. The cost of such service might, if necessary, be raised by a tax e privies themselves, but, in view of the fact that the use of the s for a similar purpose is granted without cost for such as make ctions therewith, a more equitable basis of payment would appear from the general taxes, to which an exception might be made in se of premises maintaining box privies after sewer facilities were ble. The plan above outlined is respectfully submitted for con- tion.

regulation of privies themselves is provided for in a bill to regu- he disposal of certain forms of refuse in the District of Columbia . 1258) which is now pending in the Senate.

es.—The keeping of ashes and the frequency and method of al and disposal are at present entirely without control or super- . While not in themselves nuisances if properly cared for, it is ed that they as well as other forms of refuse should, in the inter- cleanliness and for the convenience of citizens, be removed by overnment either under contract or by day labor. The cost of service to the citizen would probably be no greater than at present, he must pay the ash man from time to time for removing such as accumulate.

cellaneous refuse.—In addition to the various forms of refuse which heretofore been considered, there remains a large amount which mulates about dwelling houses, stores, offices, and shops, such as paper of all sorts, sweepings, packing from boxes, etc., for the

collection and disposal of which no provision is made. The removal of this is, effected in the same manner as that of ashes, viz, by occasional calls of the ash man. It is also disposed of in the same manner as ashes, viz, by deposit upon lowlands. But while ashes so deposited form a fairly good filling and do not cause nuisance, the same is not true of this class of refuse, which, if not burned, makes a spongy, elastic soil; that is, as much of it as is not strewn over the streets and adjacent premises by the wind and not carried away by the men, women, and children who visit the dumps for salvage, and, if an attempt be made to burn it, causes a widely diffused nuisance by the foul smoke resulting therefrom.

An effort has been made for the past two years to obtain an appropriation for the purpose of securing the erection of furnaces for the reception and destruction of this material, but thus far without success. The recommendation for such an appropriation is therefore respectfully renewed. It is respectfully submitted, however, that the duty of the Government will not be performed until provision has been made for the collection of this material as well as for its disposal.

It is believed that there might be organized a system for the collection and disposal of all of the before-mentioned forms of refuse with greater economy and convenience to the citizen than the present method, and with advantage to the community from a sanitary standpoint. The disposal of sweepings and ashes might be continued as at present, the garbage either cremated or reduced, and the night soil cremated or disposed of by the method now in vogue. The general refuse, which should in any case be collected separately, would appear from recent reports to form a valuable fuel for use in connection with either the cremation or reduction of garbage and night soil. The cost of the service outlined above, in excess of the expense incident to the service now rendered, might, if necessary, be paid by a graduated house tax, probably without entailing greater expense upon the householder than the present method.

The foregoing is a bare outline of the needs of the District in the way of public scavenger service. To fill in the details requires an amount of time and labor which is not at the disposal of the health department. If, therefore, the plan seems to be worthy of further development it is suggested as one of the reasons why additional clerical aid should be afforded this department, as has been requested in the estimates submitted.

POUND SERVICE.

There have been impounded during the year just ended 2,962 dogs, 60 horses, 12 mules, 13 cows, 1 hog, 9 goats, and 7 geese—or 3,064 animals of all kinds. Of these, 2,710 were killed, 72 were sold, and 282 were redeemed by their owners. The total amount received from the pound service in the way of fees and proceeds from sales was $526.25, while the expenses, exclusive of salaries, were $485.14. Both of these amounts include the cost of feeding impounded horses, mules, and cows; as, although it is necessary for the owners of such animals to pay this amount before the animals can be released, or for the health officer to deduct it from the proceeds of their sale, under the present system of accounts it must be deposited in the United States Treasury as one of the receipts of the office. The expenses and receipts of the pound service are, therefore, both made to appear larger by this system than they properly should.

A detailed statement of the work of the pound during the past year and a comparative statement covering the past fourteen years is given in the following table:

TABLE S.—*Operations of the pound for the year ending June 30, 1897.*

Month.	Impounded.								Disposition.				
	Horses.	Mules.	Cows.	Hogs.	Goats.	Geese.	Dogs.	Total.	Redeemed.	Killed.	Dogs killed.	Sold.	Fees collected.
1896.													
July	13	1	6	....	2	....	147	169	18	147	145	4	$43.00
August	4	4	....	....	....	....	596	604	22	578	578	4	53.25
September	11	....	....	....	....	....	356	367	12	344	343	11	46.25
October	6	1	....	....	5	7	229	248	16	224	221	6	30.00
November	4	1	4	....	....	....	130	139	10	123	123	8	52.00
December	1	....	....	....	....	....	43	44	1	39	39	4	10.00
1897.													
January	1	....	....	....	....	....	63	64	....	61	61	3	11.00
February	....	....	....	1	....	....	151	152	7	143	143	2	15.25
March	....	....	1	....	....	....	245	246	16	213	213	6	47.00
April	6	....	2	....	....	....	353	361	26	283	283	8	73.75
May	9	1	....	....	2	....	376	388	38	314	314	8	90.00
June	5	4	....	....	....	....	273	282	14	241	241	8	54.75
Total	60	12	13	1	9	7	2,962	3,064	180	2,710	2,704	72	526.25

TABLE T.—*Animals impounded during the fourteen years ending June 30, 1897.*

Year.	Horses.	Cows.	Calves.	Mules.	Hogs.	Geese.	Sheep.	Goats.	Dogs.	Total.
1884	21	120	.....	2	2	75	.....	29	2,699	2,958
1885	15	52	.....	4	2	48	3	64	3,190	3,378
1886	22	66	.....	2	1	89	1	52	2,968	3,201
1887	21	87	.....	.....	2	16	2	50	2,880	3,058
1888	25	85	.....	4	3	26	.....	36	2,572	2,751
1889	27	64	.....	3	.....	14	.....	17	2,581	2,706
1890	54	110	.....	2	.....	19	.....	25	2,834	3,044
1891	60	131	1	5	2	78	.....	26	2,523	2,826
1892	62	109	.....	20	2	28	1	20	3,077	3,319
1893	76	38	.....	5	2	3	.....	33	2,963	3,120
1894	88	26	.....	12	.....	.....	7	21	3,408	3,562
1895	80	26	.....	6	1	18	.....	11	3,601	3,743
1896	64	18	.....	3	.....	17	.....	3	3,226	3,331
1897	60	13	.....	12	1	7	.....	9	2,962	3,064
Total	685	945	1	80	18	438	14	396	41,484	44,061

There were issued by the collector of taxes during the year licenses for 7,345 dogs. There were impounded during that time 2,962 dogs, nearly all of which were unlicensed. Presuming that half of the unlicensed dogs were impounded, there were in the District of Columbia during the year 12,269 dogs. The number of cows kept for dairy purposes in the District, as shown by the applications for permits to keep dairy farms, was 1,356. No estimate of the number of other domestic animals can be made.

Under section 4 of an ordinance to amend "An ordinance to prevent domestic animals from running at large within the cities of Washington and Georgetown," passed by the board of health May 19, 1871, and legalized by Congress by a joint resolution approved April 24, 1880, and by an act approved August 7, 1894, all proceeds from the sale of impounded animals over and above the charges and expenses, if

unclaimed for a period of one year, are to be used by the health officer for sanitary purposes. Until June 25, 1895, it had been customary, however, to deposit this balance as a part of the pound fees, the District only receiving the benefit indirectly, as in the case of any other receipt. But under the date above mentioned the right of the health officer to use this amount as a "sanitary fund" was sustained by the Comptroller of the Treasury. The amount deposited to the credit of this fund since that time and still remaining available is $22.15.

Attention is invited to the diminution in the amount of pound fees, and probably also in the amount of the receipts for dog licenses, through the ruling of the attorney for the District that the requirement of the act of June 19, 1878, that the pound master seize all dogs found running at large without the tax tag, impound them, and if they be not redeemed within forty-eight hours, sell or destroy them, is void. Under this ruling licensed dogs running at large, although without the tax tag, should not be impounded, and if impounded must be released without payment of fee, upon the presentation of the collector's receipt for the tax. As it is impossible to distinguish a licensed dog from one which is not licensed, except by the tag, many licensed dogs without tags are impounded, only to be released upon the presentation of the receipt. The work of the pound service is thus increased without any return therefor. The amount of the receipts for dog licenses is probably also diminished by the payment of one license for two dogs; the one not described on the collector's receipt wearing the tag, and thereby being protected from the pound men; while the release of the other, if it be impounded, is secured without expense by presenting the collector's receipt in which its description appears.

The urgent need for a new pound demands serious consideration. The structure at present used for that purpose is a disgrace to the community. When first built, in 1871, it was intended merely as a temporary arrangement for the accommodation of stray animals, as is indicated by its location in the middle of the roadway at the intersection of Twenty-third street, C street, and New York avenue. Its proposed temporary character was, however, apparently soon lost sight of, and in 1880 it was enlarged to its present size, viz, 40 by 90 feet. It is not yet of suitable size or construction for the proper accommodation of impounded animals and of the apparatus and horses used in the service. There is scarcely anything connected with the establishment that does not need to be repaired or replaced. The dog pens are too small. The heavy wagon used for the conveyance of dogs in the city must be used for country work to the detriment of the horses. No provision exists for the destruction of animals by modern methods, which, while probably no less painful than that now employed, viz, by shooting, are certainly less repugnant and have less tendency to brutalize those responsible for their operation.

I respectfully renew, therefore, my previous recommendation that a suitable site be purchased and a permanent building be constructed for the accommodation of all the paraphernalia of the pound service and of impounded animals of all kinds, and provided with improved apparatus for destroying such animals as must meet this fate.

In view of the fact that some of the horses in the service of the health department must necessarily be provided for at the pound, it is respectfully recommended that provision be made for caring for all such horses there, instead of stabling them in rented quarters, as at present.

The estimated cost of making the improvement outlined above is $10,000, which amount is included in the estimates of this department for the ensuing year.

PROSECUTIONS.

The following table shows the number of cases in which warrants were issued at the instance of this department for the arrest of persons alleged to be guilty of having violated the various sanitary laws, and the outcome of their issue:

TABLE U.—*Cases referred to the police court during the year ending June 30, 1897.*

Disposition.	Character of nuisances.														
	Privies.	Water-closets.	Sewers.	Slaughterhouses.	Violations of drainage act.	Stables.	Yards.	Vacant lots.	Hogs.	Violations of milk law.	Food and drugs.	Removing dead bodies without permit.	Burying fecal matter in yards.	Stagnant water.	Violation of garbage regulations.	Total.
Convicted and fined	31	2	1	1	....	....	4	2	....	14	37	2	6	....	1	101
Convicted, fined, and sentence suspended	3	....	1	....	....	....	....	....	....	....	....	....	....	....	....	4
Convicted and personal bonds taken	78	2	6	....	27	1	4	1	4	5	....	2	....	2	....	132
Nol prossed (nuisance abated after issue of warrant)	30	7	26	1	21	....	....	6	....	5	....	....	....	5	....	101
Dismissed	7	1	5	....	2	....	1	....	....	....	....	....	....	....	....	16
Collateral was forfeited	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1
Not found by police	6	....	....	....	....	....	....	....	....	....	....	....	....	....	....	6
Total	155	12	39	2	50	1	9	9	4	24	37	4	6	7	2	361

Convicted and fined	101
Convicted and fined and sentence suspended	4
Convicted and personal bonds taken	132
Nol prossed (nuisance abated after issue of warrant)	101
Dismissed	16
In which collateral was forfeited	1
Not found by police	6
Total	361
Amount of fines collected	$477.00

In view of the almost uniform practice of the court of dismissing cases in which the nuisances have been abated after the issue of warrants and before the cases come to trial, a large number of such cases have been abandoned. The number is larger than it would otherwise be, because of the frequency with which cases are continued by the court after having been referred to it. The practice of continuing cases in which prosecution is instituted by the health department is bad in its effect, because the persons prosecuted have almost uniformly been granted ample time to comply with the law before warrants were requested. The continuance of such cases therefore permits unnecessarily the continuance of nuisances. Similarly the dismissing of cases in which nuisances have been abated after the issue of warrants has the same effect, for notice having been given to abate the nuisance within a specified time, failure to comply within that time would appear to constitute a violation of law, which could not be purged by any subsequent compliance. The practice of permitting a subsequent compliance to be offered as a good defense, and often granting time in which to make such compliance, has therefore the effect of inducing noncompliance with the notices originally served by the health department, and thus of increasing the work of the department, of the prosecuting attorneys, and of the courts. The matter is one, however, over which the department has no control.

Of 361 warrants issued, 101 have been canceled for the reasons above, and 6 have been canceled because the police have been u to find the parties against whom they were issued. In one ca lateral was forfeited. The entire number of cases, therefore, came to trial was 253. In 94 per cent of these convictions were se but in only 43 per cent of convicted cases were penalties enforce the remainder, sentence was suspended in 4 cases and personal taken in 132. The total amount of fines collected was $477.

It is interesting to note that 47 per cent of all warrants were for nuisances resulting from privies.

LEGISLATION.

The past year has been marked by great progress in the direc securing necessary changes in the laws relating to sanitation in th trict and to allied subjects. For the preparation of some of thes and aid in the preparation of others, and for valuable assista securing their proper presentation to Congress, thanks are due Medical Society of the District of Columbia and to the Washi Homeopathic Medical Society.

Reference has already been made to the promulgation by the missioners of a regulation forbidding spitting in public convey and others regulating the use and occupancy of buildings and gr also to the passage by Congress of laws to punish the impersona inspectors, to authorize the Commissioners to charge a fee for scripts from the records, and to prevent the spread of contagio eases; and certain laws passed by the Fifty-fourth Congress c the first session have been referred to in the preceding report c department. It is therefore sufficient now to give the following mary of the status of legislation at the close of the Fifty-fourth gress and at the close of the extraordinary session of the Fift Those bills introduced at the Fifty-fourth session and not passe of course dead, while those introduced in the Fifty-fifth Congre pending at the present time.

FIFTY-FOURTH CONGRESS.

A bill to provide for the care and cure of inebriates in the District of Col H. R. No. 818. In the House of Representatives, reported back from the Com on the District of Columbia (H. R. Report No. 649) and passed. In the Senate, re back from the Committee on the District of Columbia adversely (S. Report N and recommitted.

A bill to regulate the practice of veterinary medicine and surgery in the D of Columbia. H. R. No. 2659. S. No. 1233. In the House of Representatives, re back from the Committee on the District of Columbia (H. R. Report No. 870). Senate, referred to the Committee on the District of Columbia.

A bill to establish the Washington Homeopathic Medical College. H. R. N Referred to the Committee on the District of Columbia. (For a bill for th purpose in the Senate, see S. No. 1814, infra.)

A bill to provide street entrances to alleys in the District of Columbia. H 5680. S. No. 1987. In the House of Representatives, referred to the Commi the District of Columbia. In the Senate, referred to the Committee on the D of Columbia.

A bill to prevent the adulteration of candy in the District of Columbia. No. 8679. Referred to the Committee on the District of Columbia. (See H. 409, Fifty-fifth Congress, infra.)

A bill to prohibit cemeteries in the District of Columbia which will interfe street extensions of the city of Washington. H. R. No. 8729. Referred to th mittee on the District of Columbia.

A bill to prevent the spread of contagious diseases in the District of Col H. R. No. 9023. H. R. Report No. 2524. S. Report No. 1461. Became a law M 1897. (See Public Document No. 125.)

A bill for the regulation of cemeteries and the disposal of dead bodies in the District of Columbia. H. R. No. 9099. In the House of Representatives, reported back from the Committee on the District of Columbia (H. R. Report No. 2525) and passed. In the Senate, reported back from the Committee on the District of Columbia (S. Report No. 1462) and passed. Failed to become a law because of the failure of the President to sign it. (See S. No. 467, Fifty-fifth Congress, infra.) (This bill was passed at the close of the session. The failure of the President to sign it is attributed to lack of time and not to any objection to the measure itself.)

A bill to regulate privies in the District of Columbia. H. R. No. 9142. In the House of Representatives, reported back from the Committee on the District of Columbia (H. R. Report No. 2526) and passed. In the Senate, reported back from the Committee on the District of Columbia (S. Report No. 1460). (See S. No. 1258, Fifty-fifth Congress, infra.)

A bill to further regulate the sale of milk in the District of Columbia, and for other purposes. H. R. No. 9645. Referred to the Committee on the District of Columbia. (See S. No. 1084, Fifty-fifth Congress, infra.)

A bill authorizing the Commissioners of the District of Columbia to charge a fee for the issuance of transcripts from the records of the health department. H. R. No. 9821. (See H. R. Report No. 2793.) Became a law March 3, 1897. (See Public Document No. 135.)

A bill relating to the adulteration of foods and drugs in the District of Columbia. H. R. No. 9842. In the House of Representatives, reported back from the Committee on the District of Columbia (H. R. Report No. 2791) and passed. In the Senate, reported back from the Committee on the District of Columbia (S. Report No. 1458). (See S. No. 471, Fifty-fifth Congress, infra.)

A bill to restore medical freedom to the people of the District of Columbia. H. R. No. 9899. Referred to the Committee on the District of Columbia. (See S. No. 1134, Fifty-fifth Congress, infra.)

A bill to regulate the sale of poisons in the District of Columbia. H. R. No. 9902. Referred to the Committee on the District of Columbia.

A bill to punish the impersonation of inspectors of the health and other departments of the District of Columbia. H. R. No. 9976. S. No. 3498. H. R. Report No. 2792. S. Report No. 1331. Passed. Became a law March 3, 1897. (See Public Document No. 111.)

A bill to amend an act to regulate the practice of pharmacy in the District of Columbia. H. R. No. 9980. Referred to the Committee on the District of Columbia.

A bill to regulate the sale of poisons in the District of Columbia. H. R. No. 10038. In the House of Representatives, reported back from the Committee on the District of Columbia (H. R. Report No. 2820) and passed. In the Senate, reported back from the Committee on the District of Columbia. (See S. No. 470, Fifty-fifth Congress, infra.)

A bill to amend an act entitled "An act to prohibit the interment of bodies in Graceland cemetery, in the District of Columbia." Passed August 3, 1894. H. R. No. 10122. H. R. Report No. 2902. Became a law March 2, 1897. (See Public Document No. 112.)

A bill to relieve oppressed medical practitioners in the District of Columbia. H. R. No. 10170. Referred to the Committee on the District of Columbia.

A bill to amend an act to regulate the practice of pharmacy in the District of Columbia. H. R. No. 10332. S. No. 3605. In the House of Representatives, reported back from the Committee on the District of Columbia (H. R. Report No. 3022). In the Senate, referred to the Committee on the District of Columbia. (See H. R. No. 2281, S. No. 1330, Fifty-fifth Congress, infra.)

A bill to incorporate the Washington Homeopathic Medical College in the District of Columbia. S. No. 1814. Reported back adversely from the Committee on the District of Columbia (S. Report No. 529).

A bill to test the improved methods for the disposal of sewage and water filtration of villages and cities. S. No. 2123. Reported back adversely from the Committee on the District of Columbia (S. Report No. 878).

A bill to authorize the acquisition of certain real estate for the purpose of a site for a hospital for the treatment of contagious diseases. S. No. 3267. Referred to the Committee on the District of Columbia.

A bill for the prevention of smoke in the District of Columbia, and for other purposes. S. No. 3648. Referred to the Committee on the District of Columbia. (See S. No. 1085, Fifty-fifth Congress, infra.)

A joint resolution to establish a commission to investigate the sources of contamination of the Potomac River and report what legislation is necessary to remove and prevent such pollution. S. R. No. 194. Referred to the Committee on the District of Columbia. (See proposed amendment to sundry civil bill, for investigation of pollution of water supplies, of January 29, 1897.)

FIFTY-FIFTH CONGRESS.

A bill for the regulation of cemeteries and the disposal of dead bodies in the District of Columbia. S. No. 467. Passed the Senate May 20, 1897.

A bill to regulate the sale of poisons in the District of Columbia. S. No. 470. Referred to the Committee on the District of Columbia.

A bill relating to the adulteration of foods and drugs in the District of Columbia. S. No. 471. Passed the Senate May 29, 1897.

A bill to further regulate the sale of milk in the District of Columbia, and for other purposes. S. No. 1084. Referred to the Committee on the District of Columbia.

A bill for the prevention of smoke in the District of Columbia, and for other purposes. S. No. 1085. Referred to the Committee on the District of Columbia.

A bill to restore medical freedom to the people of the District of Columbia. S. No. 1134. Referred to the Committee on the District of Columbia.

A bill to regulate, in the District of Columbia, the disposal of certain refuse, and for other purposes. S. No. 1258. Referred to the Committee on the District of Columbia.

A bill to amend an act to regulate the practice of pharmacy in the District of Columbia. S. No. 1330. H. R. No. 2281. In the Senate, referred to the Committee on the District of Columbia.

A bill to prevent the adulteration of candy in the District of Columbia. H. R. No. 409.

A joint resolution authorizing the Commissioners of the District of Columbia to alter, amend, or repeal certain health ordinances. S. R. No. 34. Referred to the Committee on the District of Columbia.

EASTERN BRANCH FLATS.

In the report of this department for 1894–95 attention was briefly invited to the necessity for improving the vast tract of marsh located in the Eastern Branch or Anacostia River; and in the present report reference has already been made to the high death rate in the eastern section of the District when compared with the death rate for the entire portion of the District in which conditions of life are similar, which, it may fairly be assumed, is, to a certain extent at least, due to the presence of this marsh. But even the death rate can give no adequate idea of the injurious influence arising from this place, because the diseases most likely to result therefrom are not such as are in themselves commonly fatal, or, if so, act through such long periods of time as to render it likely that many of those who contract such diseases in this vicinity die elsewhere. For instance, malarial infection, which appears to bear the closest relation to the proximity of marsh land, is not often fatal in the forms in which it occurs in the District of Columbia; so that in the absence of any compulsory report of cases it is impossible to determine the extent to which it prevails. Similarly, the occurrence of pulmonary consumption is favored by a residence upon or near a damp soil; but in the absence of morbidity reports the relative degree to which this disease originates in the various sections of the District can not be estimated. Even, therefore, if the excess of the death rate in the Eastern Branch section over that for the county as a whole (35.82 per 1,000 for the former as compared with 27.92 for the latter) be partly due to causes other than the presence of this great marsh, which is probably the case, or even if it were wholly due to other causes, which there is no reason to believe, this department could not hesitate to urge the immediate improvement of these flats, upon the basis of general observation and experience of sanitarians as to the unwholesomeness of such conditions as now exist.

IMPROVEMENT OF THE SEWER SYSTEM.

So much attention has been given within the past few years to the study of the sewerage system of this District, with the view of effecting necessary improvements, that it would seem almost needless for this

department to invite attention at the present time to the necessity therefor. But while the system has been studied and plans for its improvement have been carefully prepared, the labor thus expended will not bear fruit within the lifetime of the present generation if the present piecemeal policy of construction be followed.

In order to realize the rate of progress toward the completion of such improvements as have been pointed out as necessary, we must consider the length of time which has been consumed in bringing the work to its present stage. The present agitation may be said to have had its starting point June 13, 1878, when the Senate authorized a committee to sit during the recess of Congress "to consider and examine into various plans for the improvement of the system of sewerage and the sanitary condition of the District of Columbia." The appointment of this committee seems to have terminated in the publication of several rather elaborate reports upon the sewerage of European cities, with numerous plans for the improvement of the sewerage of Washington (see Mis. Docs. Nos. 13, 17, 19, and 25, Forty-fifth Congress, third session), but no practical results were accomplished.

Eleven years passed before the next step was taken. Then the District appropriation act, approved March 2, 1889, provided for the appointment by the President of the United States of three competent sanitary engineers to examine and report upon the system of sewerage existing in the District of Columbia, together with such suggestions and recommendations as might to them seem necessary and desirable for the modification and extension of the same. The report of the committee appointed under this act was published during the following year, 1890 (see Ex. Doc. 445, Fifty-first Congress, first session). The disposal of the city's sewage by the system of drainage in operation at the time of the investigations of this committee, which is practically that now in use, was found defective. At fourteen points along the Potomac and at eight on the Eastern Branch sewers of various sizes discharged their contents; and because of the relation existing between the tides and the current this discharge was frequently not carried off, but oscillated along the river front, settling along the shores, on the bottom, and on the flats; there it formed a breeding place for various forms of micro-organisms and gradually underwent decomposition, with the usual accompaniments in the way of deleterious and foul gases. This condition was much worse in the Eastern Branch than on the Potomac because of the relatively small volume of the stream and the presence of so much shallow water and swamp. In addition to this improper disposal of sewage after its discharge, certain points of the sewer system within the city itself were found to be sources of nuisances, viz, the B-street outlet canal, the James Creek Canal, and the lower portion of Rock Creek.

In the presence of such conditions the board of sanitary engineers found it necessary to devise a plan whereby all sewage of the city would be disposed of in such a manner as to prevent its deposit within the immediate vicinity of the city, and by which the open sewers above referred to would be closed and other existing defects of more or less importance corrected. To this end it recommended the establishment of pumping stations, and the discharge of the entire output of the Potomac River at a point some distance below Giesboro, with numerous changes in the present sewer system. Practically this plan has been adopted by Congress, and appropriations have been made for the construction of portions of the proposed work. But by this piecemeal method of construction it is to be feared that the population will outgrow the plans before the work is completed; so that the present

generation after paying the cost will not have the use or benefit of the sewers, and the next generation will have to devise and pay for a sewage-disposal scheme of its own. In view of the fact, therefore, that more than fifteen years have already elapsed since the need of improving the sewer system of this District was first realized, and so little progress has been made toward the completion of the work which has been outlined for that purpose, steps should be taken to hasten that end.

Respectfully submitted.

WM. C. WOODWARD, M. D.,
Health Officer.

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

APPENDIXES

TO THE

REPORT

OF THE

HEALTH OFFICER

OF THE

DISTRICT OF COLUMBIA.

APPENDIX A.

REPORT OF MEDICAL SANITARY INSPECTOR.

SIR: I have the honor to submit the following report of work done the scarlet fever and diphtheria service during the fiscal year ended ıne 30, 1897:

Of diphtheria there have been reported 620 cases, an increase of 294 ·er the number reported last year, and the largest number that has me to the knowledge of this department since the passage of the act prevent the spread of scartlet fever and diphtheria December 20, 90. This apparent increase in the prevalence of this disease is not, ıwever, peculiar to the District of Columbia, but has been noted over e northern, central, and eastern parts of the country, as appears from ıble I. In this table is shown the number of cases of diphtheria, ıpulation, etc., of 15 large cities, selected as representatives of the ctions in which they are situated. An examination of it shows that ıe District of Columbia (Washington) stands ninth in the list as ·gards the number of cases per each 10,000 of population, eleventh ·cording to the death rate, and eleventh in the number of deaths per),000. Those places which had a smaller number of cases per 10,000, ız, San Francisco, Atlanta, and New Orleans, are situated in warm ·calities and not subject to sudden and marked variations in temperture, etc.

ABLE I.—*Number of reported cases and deaths from diphtheria, together with ratio per 10,000 of population, in 15 representative cities during the year ending June 30, 1897.*

Cities.	Population.	Reported cases.														Deaths.		
		July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.	Per 10,000.	Total.	Per each 10,000.	Per cent of, to cases.
·ston	508,694	300	256	296	461	498	466	481	368	338	366	340	366	4,536	89.1	533	10.4	11,7
·w York	1,962,319	854	626	522	849	828	1,011	1,372	757	878	897	1,430	1,044	11,068	56.4	1,477	7.5	13.3
·troit	267,500	17	45	60	135	168	205	159	106	139	71	75	47	1,227	45.8	301	11.2	24.5
·ffalo	350,000	37	39	52	116	153	255	198	117	115	89	70	89	1,330	38.0	265	7.6	19.9
·lwaukee	267,500	27	47	117	172	116	126	75	59	53	29	34	49	904	33.8	175	6.5	19.3
·iladelphia	1,201,524	165	128	215	308	411	450	455	341	399	357	384	390	3,998	33.2	1,003	8.3	25.1
·ttsburg	286,250	14	32	70	130	112	80	65	23	41	22	28	84	651	22.7	167	5.8	25.6
·veland	340,139	6	37	64	159	85	102	174	33	24	19	34	24	761	22.3	166	4.8	21.8
·shington	277,782	28	23	48	59	110	116	58	44	19	19	43	53	620	22.3	110	3.9	17.7
·ltimore	506,398	10	18	28	47	72	115	99	71	74	60	62	54	710	14.0	277	5.4	39
·aha	140,000	7	11	25	39	36	27	18	5	4	5	4	3	184	13.1	45	3.2	24.4
·w Orleans	275,000	7	13	13	34	25	41	49	36	29	24	25	32	328	11.9	48	1.7	14.6
n Francisco	360,000	10	22	11	39	43	60	24	13	30	32	17	11	312	8.6	66	1.8	21.1
·lanta	105,000	3	1	1	4	1	2	1	2	3	....	.....	1	19	1.8	5	0.4	26.3
·icago	1,619,226	...	...	...	...	...	.....	.....	...	...	...	.....	.....	.....	.....	847	5.2	....

A large number of the cases brought to the attention of the office, ·long to that class not heretofore reported by physicians, and in which positive diagnosis was only possible by bacteriological examination.

The importance of recognizing and quarantining such cases, which present no characteristic symptoms of the disease, but in which the Klebs-Lœffler bacilli are present, is shown by the experience of this department last autumn and winter. By referring to Table II, it is noted that in September and October the mortality was high.

TABLE II.—*Number of cases and deaths from diphtheria during the fiscal year 1896-97.*

Months.	Cases.					Deaths.					
	White.		Colored.		Total.	White.		Colored.		Total.	Per cent of deaths to cases.
	M.	F.	M.	F.		M.	F.	M.	F.		
1896.											
July	9	17	1	1	28	1	9	1	1	12	42.9
August	4	5	6	8	23	1	.....	1	.....	2	8.7
September	15	13	9	11	48	3	2	3	4	12	25
October	16	26	4	13	59	5	6	2	5	18	30.5
November	46	49	5	10	110	6	1	1	1	9	8.1
December	49	50	4	13	116	7	4	1	1	13	11.2
1897.											
January	18	33	3	4	58	2	5	.....	1	8	13.8
February	12	16	7	9	44	3	5	1	1	10	22.7
March	10	6	2	1	19	1	1	.....	1	3	15.8
April	6	13	0	0	19	2	1	.....	.....	3	15.8
May	13	21	5	4	43	3	2	2	1	8	18.6
June	18	18	6	11	53	7	1	1	3	12	22.6
Total	216	267	52	85	620	41	37	13	19	110	17.7

During the month of October the fact that there were a number of cases of diphtheria in the city was commented on from day to day by the newspapers and produced a feeling of uneasiness to such an extent that physicians apparently took cultures from all the sore throats that came under observation. By this means many cases among persons who possessed a considerable degree of immunity were discovered and quarantined, which, if allowed to go abroad would probably have infected others more susceptible, and our death rate would have continued high. Instead of this it was reduced to 8.1 per cent in November and 11.2 per cent in December, the months when the mortality is usually highest. After a time the panic (?) subsided, fewer cultures were sent in, more "bacteriological" cases were allowed to go about, and the mortality went up again. The relation between the number of primary cultures examined and the rate of mortality for six months, from September to February, inclusive, is as follows:

Months.	Cultures examined.	Rate of mortality.	Months.	Cultures examined.	Rate of mortality.
		Per cent.			*Per cent.*
September	46	25	December	222	11.2
October	88	30.5	January	106	13.8
November	205	8.1	February	80	22.7

Of the total number of cases of diphtheria reported only 22.1, or 15.5 per cent per each 10,000, were colored, while the disease occurred among the white portion of our population in the proportion of 25.5 per each 10,000. The death rate among the colored, however, was much higher than among the whites, viz, 23.3 per cent against 16.1 per cent, due probably in great part to the want of proper attention and food that exists among the poor, the great majority of whom are colored. Many

atients received good medical attention, but not having proper
; and food, were allowed to leave their beds, walk about, eat
tible food, and in many ways were not guarded from the fatal
is that caused the death of most of them.

gratifying to note the general decrease in the mortality from
ease. It is now 17.7 per cent lower than it has been at any time
ata have been available for its calculation, and a decrease from
ar of 5.6 per cent, due, as before stated, to the sequestration of
called "bacteriological" cases and to the use of diphtheria anti-
erum.

treatment of diphtheria by antitoxic serum can not be too highly
nded, as is shown by the great difference in mortality among
ases in which antitoxin was used as compared with the mor-
among those in which it was not, as shown by Table III.

LE III.—*Number of persons from 1 to 50 years of age treated for diphtheria.*

Ages.	Total cases treated.	Treated with antitoxin.			Not treated with antitoxin.		
		Number.	Died.	Per cent of mortality.	Number.	Died.	Per cent of mortality.
ear	4	.....	.....	.....	4	4	100
and 3 years	118	58	7	12.1	60	33	55
and 6 years	157	78	4	5.1	79	30	37.9
and 12 years	200	96	10	10.4	113	18	15.9
2 and 18 years	51	23	.....	.....	28	3	10.7
8 and 25 years	38	13	.....	.....	25	.....	.....
5 and 50 years	42	17	.....	.....	25	.....	.....
ars	1	.....	.....	.....	1	1	100
l	620	285	21	7.3	335	89	26.6

is administered in only 45.9 per cent of the total number of cases
d, with a death rate of 7.3 per cent; while among those not so
it was 26.6 per cent. By reference to this table it will be noted
e greatest difference in mortality is among those between 3 and 6
f age. Of those treated with antitoxin only 5.1 per cent died,
7.9 per cent of those not so treated succumbed to the disease.
also be remarked that of 53 persons above 12 years of age not
d after the use of this remedy, while of 74 to whom it was not
stered 4 succumbed.

y last fall this department abandoned the plan of producing its
titoxin and has since purchased it in open market, which arrange-
as been very satisfactory.

re seen no reason to change the statement made in my last report
d sanitation, unhygienic surroundings, absence of sewers, and
y do not favor the appearance of the diseases diphtheria and
ina. During the year 577 inspections have been made, with the
ng result:

uses visited	400
ouses visited	177
n bad condition (greatly out of repair)	25
with closet in yard, but not in house	154
with privies	86
having damp cellars	24
having damp walls	2
situated amidst unhygienic surroundings	58
overcrowded—that is, having more than 2 occupants to a room	17
living in infected houses	711
exposed to the danger of infection in these premises	3,738
or families	92

From this statement it will be seen that only 16.3 per cent of the families in which diphtheria occurred could be considered poor, the great majority of cases occurring among those enjoying the benefit of modern sanitary arrangements.

This disease, as well as that of scarlatina, has not been confined to any particular section of the city, as a reference to Table IV will demonstrate.

TABLE IV.—*Number of cases and deaths from diphtheria and scarlatina, by color, occurring in each police precinct, with the mortality, number of cases, and deaths per each 10,000, and population.*

DIPHTHERIA.

Precinct.	Population.			Cases.			Deaths.	Per cent of deaths to cases.	Cases per each 10,000 of total population.	Cases per each 10,000 of white population.	Cases per each 10,000 of colored population.
	White.	Colored.	Total.	White.	Colored.	Total.					
First, between K and South B and Seventh and Fifteenth NW	11,205	1,646	12,851	26	13	39	4	10.2	30.3	23.2	78.9
Second, between K and R and Florida avenue and Seventh and Fifteenth NW	24,373	14,579	38,952	63	11	74	12	16.2	18.9	21.4	7.5
Third, between R street and river, Fifteenth street and Rock Creek	19,580	15,142	34,722	44	12	56	10	17.8	16.1	22.4	7.9
Fourth, south of South B street and center of Mall and west of South Capitol street	19,039	14,154	33,193	31	7	38	10	26.3	11.4	16.2	4.9
Fifth, south of East Capitol and east of South Capitol street	28,994	10,648	39,642	65	18	83	13	15.6	20.9	22.4	16.9
Sixth, between K street and center of Mall, Seventh street west and First street east	18,726	5,001	23,727	50	20	70	9	12.8	29.5	26.7	39.9
Seventh, Georgetown	14,595	5,147	19,742	28	3	31	6	19.3	15.7	19.2	5.8
Eighth, north of R street and Florida avenue, west of Brentwood Road, and east of Rock Creek	25,854	15,564	41,418	73	33	106	21	19.8	25.6	28.2	21.2
Ninth, east of First street east and north of East Capitol street	27,091	6,444	33,535	103	20	123	25	20.3	36.6	38	31
Total	189,457	88,325	277,782	483	137	620	110	17.7	22.3	25.5	15.5

—Number of cases and deaths from diphtheria and scarlatina, by color, occur- each police precinct, with the mortality, number of cases, etc.—Continued.

SCARLATINA.

ict.	Cases.			Deaths.	Per cent of deaths to cases.	Cases per each 10,000 of total population.	Cases per each 10,000 of white population.	Cases per each 10,000 of colored population.
	White.	Colored.	Total.					
m K and d Seventh h NW.....	1	.....	1	.....	.....	0.77	0.88	.....
n K and R avenue and Fif-	13	1	14	.....	.....	3.59	5.33	0.68
n R street Fifteenth ock Creek. of South B center of st of South et.....	11	.....	11	.....	.....	3.16	5.61	.....
f East Cap- t of South et.....	11	.....	11	.....	.....	3.31	5.76	.....
n K street of Mall, reet west reet east...	36	3	39	.....	.....	9.83	12.41	2.81
getown.... of R street a avenue, entwood st of Rock	8	1	9	1	11.1	3.79	4.27	1.99
First street th of East et.....	24	3	27	.....	.....	13.67	16.44	5.82
.....	26	4	30	.....	.....	7.24	10.05	2.57
	18	.....	18	.....	.....	5.36	6.64	.....
.....	148	12	160	1	0.6	5.75	7.81	1.35

hteen of the cases recorded as in the Fifth precinct were at Providence Hospital and charged to that section, as they were brought from all parts of the city.

ing to the population, however, it occurred to a greater extent th, first, sixth, and eighth police precincts. It will be noticed leath rate has been highest in those precincts in which the rtion of our people reside—the fourth, ninth, eighth, and This fact bears out the statement made above that the in- ortality is due to the poor not having the proper nursing, etc., ness. Annexed hereto is a chart showing the average of the , thermometer, range of temperature, humidity, and rainfall, umber of cases of scarlet fever and diphtheria for each of the ears, from July, 1891, to June, 1897, inclusive.

iot been proven that the meteorological conditions exert a very ience on the spread of diphtheria, although from observation seem as though it was rather more prevalent during damp, her.

teriological laboratory for the examination of cultures from . cases of diphtheria has been more generally made use of by s, as is indicated by the fact that during this year 2,179 cul- e been examined against 1,022 reported on last year. Of these, primary for the purposes of diagnosis, and in only 420 of them Kelbs-Loeffler bacilli found. Apparently more interest in this f diagnosis was manifested by the medical practitioners of the the 620 cases of diphtheria reported during the year, cultures

were taken in all but 179. It is interesting to record that even with the imperfect system of disinfection now in use no cases of the disease have occurred in a house after it has been disinfected. It is an imperfect system for the reason that for the most part the work of disinfection is done by the occupants of the infected premises, and while instructions are given from this department they can not always be depended upon to have them carried out fully. The work should be done by men employed by the health office and trained to do the work correctly.

Sulphur as a disinfectant has been used very little during the past year, and only in cases of scarlatina. Where it has not been possible for the walls to be washed down with the bichloride of mercury solution the rooms have been disinfected by formaldehyde gas. This department possesses 12 formaldehyde generators of the pattern designed by Dr. J. J. Kinyoun, which are loaned to persons having use for them, with instructions as to their proper working. In some cases where we could not reasonably depend upon them to use these intelligently the rooms were disinfected by the office.

Mattresses, pillows, etc., are disinfected by steam at the municipal plant free of expense to the owners of the goods. During the past year the following articles have been disinfected:

Mattresses	578	Chairs	19
Beds	107	Cushions	40
Pillows	1,051	Mattings	3
Bolsters	205	Bath robes	8
Blankets	568	Sweaters	3
Quilts	132	Wire mattresses	5
Hassocks	29	Hats	5
Portieres	102	Slippers, pairs	7
Carpets	154	Stockings, pairs	5
Coats	108	Lap robes	5
Vests	28	Sheets	18
Trousers, pairs	64	Smoking jackets	2
Dresses	85	Window shades, pairs	8
Rugs	210	Cots	2
Couches	21	Books, lots (about 800 in all)	33

If these goods had been disinfected at a private establishment it would have cost the department $2,256.50. The cost of maintaining the plant, however, including painting building and repairs, has amounted to only $800.

There were several schoolhouses disinfected at various times during the year, and during the Thanksgiving holidays all the public and most of the private schools were disinfected, with good results.

Our ambulance for minor contagious diseases has been of good service since it went into operation last January. Since then by means of it several patients have been taken to the hospital. This ambulance was built in the city, and is well adapted to the use for which it is intended. The body is set on a platform running gear strongly made. The axles are 1⅜ inches in front and 1½ inches in the rear, the latter being cranked to allow the body to set low. The height of the front wheels is 3 feet 1 inch, and the rear wheels 3 feet 11 inches. The size of the front side and cross and the rear side and cross springs is the same, 3 feet 4 inches. The body is 6 feet 8 inches long, 3 feet 6½ inches wide, and 4 feet 9 inches high, and is set 2 feet 4 inches above the ground. The body is paneled and painted outside, and lined with zinc and painted inside, so as to be easily disinfected. In front there is a glass window back of the driver, which can not be opened, while the rear is closed by double doors, the upper half of which is of ground glass. The interior is ventilated by means of three openings which can be opened and closed at

will, one on each side near the front, and one above the rear doors. The signs "Health Department" in front and "Ambulance" on the sides are removable. The vehicle is made for both pole and shafts and weighs about 900 pounds. It is fitted with a stretcher with removable covers, and two seats that can be folded out of the way.

Through the courtesy of Sister Beatrice we have been able to secure treatment of patients at Providence Hospital who would not otherwise have been able to obtain proper nursing, etc. With the two wards for which appropriation was made at the last session of Congress, we will be better able to cope with the disease and may look for a reduction in the death rate among the poor.

It is an interesting fact that of the 110 deaths from diphtheria, in 16, or 15.4 per cent of them, the nature of the disease was only discovered after the death of the patients, when the medical sanitary inspector obtained cultures from the corpse. The causes of death given by the attending physician on the death certificates were as follows:

Membranous croup	5	Acute follicular tonsilitis	1
Croup	3	Pseudo membranous laryngitis	1
True croup	1	Croupous laryngitis	2
Diphtheritic croup	1	Membranous laryngitis	1
Tonsilitis	1		

In few, if any, of these cases were precautions taken as to the isolation of the patient or disinfection, so that it can be readily understood how difficult it is to control the disease. I have been able to trace several cases of diphtheria to some of these so-called cases of membranous croup.

Scarlatina.—During the year there has been but one death from scarlet fever, with a mortality in 160 cases of only 0.6 per cent. This is most remarkable, and is not equaled in any of the fifteen representative cities shown in Table V. In those cities the death rate has varied from 8.5 per cent to 2.1 per cent, which is the nearest approach to our recent low mortality.

The disease has been of an extremely mild character. Some of the cases presented an appearance so slightly resembling scarlatina that the diagnosis was almost doubted, but the tedious desquamation which followed proved conclusively its accuracy.

TABLE V.—*Number of reported cases and deaths from scarlatina, together with ratio per 10,000 of population, in fifteen representative cities during the year ending June 30, 1897.*

Cities.	Population.	Reported cases.													Deaths.		
		July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.	Per each 10,000.	Total.	Per each 10,000.	Per cent of, to cases.
Boston	508,694	72	42	53	81	157	176	185	154	228	281	332	206	1,967	38.6	168	3.3	8.5
New York	1,962,319	213	144	107	327	395	496	785	667	767	789	1,029	742	6,461	32.9	425	2.1	6.5
Philadelphia	1,201,524	64	45	53	95	103	146	221	232	367	403	490	512	2,731	22.7	207	1.7	7.5
Detroit	267,500	41	20	42	31	55	66	71	46	36	30	35	71	544	20.3	35	1.3	6.4
Baltimore	506,398	35	28	31	66	92	118	119	83	117	102	101	89	981	19.3	48	.94	4.8
Buffalo	350,000	30	30	16	49	49	52	52	56	72	66	72	89	633	18.1	20	.57	3.1
Pittsburg	286,250	31	51	54	63	55	41	35	14	13	22	27	17	423	14.9	16	.55	3.8
Cleveland	340,139	20	18	13	30	28	44	29	16	11	14	43	22	288	8.4	6	.17	2.1
Omaha	140,000	1	2	5	19	14	11	8	7	14	20	3	6	110	7.9	8	.57	7.6
Atlanta	105,000	6	2	7	6	8	3	6	2	7	6	11	12	76	7.2	9	.85	11.8
Washington	277,782	8	8	4	13	19	20	32	19	11	6	10	10	160	5.7	1	.03	0.6
San Francisco	360,000	5	10	4	16	12	33	22	9	14	21	13	10	169	4.7	6	.16	3.5
Milwaukee	267,500	4	7	8	10	10	14	8	6	8	4	10	16	105	3.9	7	.26	6.6
New Orleans	275,000	2	9	19	6	2	12	8	7	9	3	5	4	86	3.1	2	.07	2.3
Chicago	1,619,226	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	77	.47	.....

a No report of cases.

TABLE VI.—*Number of cases and deaths from scarlatina during the fiscal year 1896-97.*

Months.	Cases.					Deaths.					
	White.		Colored.		Total.	White.		Colored.		Total.	Per cent of deaths to cases.
	M.	F.	M.	F.		M.	F.	M.	F.		
1896.											
July	6	2	.....	.....	8	.....	.....	.....	.....	.....	.....
August	2	5	.....	1	8	.....	.....	.....	.....	.....	.....
September	.....	4	.....	.....	4	.....	.....	.....	.....	.....	.....
October	5	8	.....	.....	13	1	.....	.....	.....	1	7.7
November	9	10	.....	.....	19	.....	.....	.....	.....	.....	.....
December	7	11	1	1	20	.....	.....	.....	.....	.....	.....
1897.											
January	12	17	1	2	32	.....	.....	.....	.....	.....	.....
February	7	11	.....	1	19	.....	.....	.....	.....	.....	.....
March	6	4	1	.....	11	.....	.....	.....	.....	.....	.....
April	4	.....	.....	2	6	.....	.....	.....	.....	.....	.....
May	4	5	.....	1	10	.....	.....	.....	.....	.....	.....
June	4	5	1	.....	10	.....	.....	.....	.....	.....	.....
Total	66	82	4	8	160	1	.....	.....	.....	1	.6

TABLE VII.—*Number of cases and deaths from scarlatina, by ages.*

Ages.	Cases.	Deaths.	Ages.	Cases.	Deaths.
Under 1 year	3	.....	Between 12 and 18 years	15	.....
Between 1 and 3 years	21	.....	Between 18 and 25 years	2	.....
Between 3 and 6 years	49	1	Over 25 years	4	.....
Between 6 and 12 years	66	.....			

Respectfully,

JOHN E. WALSH, M. D.,
Medical Sanitary Inspector and Bacteriologist.

Dr. WILLIAM C. WOODWARD,
Health Officer.

APPENDIX B.

REPORTS OF THE CHEMIST.

WORK IN THE CHEMICAL LABORATORY.

: I have the honor to submit the following report relative to the)erformed in the chemical laboratory for the fiscal year ending 30, 1897:

ing the year I have made 588 analyses, as follows:

coroner	5	Medicine	3
	244	Butter	3
	185	Flour	2
	42	Soap	2
ions	42	Bitters	1
sed milk	13	Powdered opium	1
ils	10	Evaporated cream	1
of tartar	8	Ice	1
tated sulphur	8	Baking powder	1
	6	Precipitated chalk	1
e of iron chloride	4	Beer	1
	3	Face bleach	1

er.—Considerable attention has been given to the examination of from the public and private wells, it being a well-recognized fact npure water is one of the fundamental sources of disease.

ll, 185 samples of water were examined, as follows: From public 115; from private wells, 65, and of Potomac water, 5.

the result of these analyses, 13 of the public wells were con- d, 2 were reported as suspicious, while 2 others were recommended leaned. Of the private wells, 19 were condemned, 9 were reported ious, and 4 were recommended to be cleaned.

percentages of impure waters would be 14.7 for the public wells 2 for the private wells.

large excess in the percentage of impure waters from private over wells is due evidently to the limited depth of the former, and to t that they are not sufficiently protected from surface drainage.

analyses of these two classes of waters show a marked difference, trogen in the form of free and albuminoid ammonia being almost ly absent in the waters from the public wells, whereas in the waters rivate wells it is in general the most prominent constituent, and ally excessive.

inference to be drawn from this will be more clearly understood we consider the manner in which these various nitrogenous com- s are produced.

he examination of a sample of water we are accustomed to esti- he amount of nitrogen present existing in four distinct conditions, the result of those estimations base our knowledge to a large on the character of the water.

Those conditions would represent nitrogen in the form of free and albuminoid ammonia, and in the form of nitrites and nitrates.

The nitrogen existing in the form of albuminoid ammonia represents the presence of actual nitrogenous organic matter, while the other forms represent the various stages of nitrification.

It is unnecessary to enter here into any extended discussion as to how this nitrification is accomplished other than to state that this process is brought about by a species of nitro organisms, and that in general there are three distinct genera comprising, first, those organisms which convert nitrogenous organic matter into ammonia or carbonate of ammonia; secondly, those organisms which transform carbonate of ammonia into nitrous acid, and, lastly, those organisms which convert nitrous into nitric acid.

Each of these germs seems to be necessary to convert the organic nitrogenous matter into the form of nitric acid, which would represent practically the final state of oxidation, or the last step in the purification of a water.

More important, however, is the fact that these bacteria, which convert nitrogenous organic matter into ammonia or carbonate of ammonia, are usually found in surface soils and in the air and rain water, and that they flourish most abundantly at a temperature of from 85° to 95° F.

At this point we might readily conclude that those waters containing considerable quantities of free and albuminoid ammonia were of surface origin were it not for the fact that waters of deep origin are liable to become polluted with albuminous matter, thus rendering such discrimination impossible.

We must therefore take into consideration one other element which plays an important part in judging of the history of a water, namely, chlorine.

This element is considerably increased by the presence of decomposed animal matter or human excreta, whereas growing vegetation has a tendency to remove it from its solution.

The absence of any considerable quantity of this element, therefore, taken in connection with considerable free and albuminoid ammonia would be a strong indication of surface water.

Sulphur, likewise, is found to be a constituent of many forms of organic matter, which, in its partial oxidized state, gives rise to sulphureted hydrogen, and while this compound is often formed from iron pyrites, by the action of water, yet the absence of any considerable quantity of iron compounds would strengthen the conviction that its origin was organic, and would lead us to the conclusion that waters of the nature indicated above were of surface origin and therefore liable at any moment to become polluted.

It should be remembered, however, that the presence or absence in waters of these chemical elements has little to do in themselves with the sanitary condition of a water, and that more depends on a correct interpretation of an analysis than on the analysis itself. Many waters have been probably unjustly condemned simply because the same were high in chlorine and nitrates, without considering whether these elements were derived from an organic or mineral source.

Waters which flow through lime regions are liable to become impregnated with nitrogen in the form of nitrites and nitrates, and yet the waters may be absolutely pure from a sanitary standpoint. Yet these elements are an index of the purity of a water, and when the interpretation is correctly based on the facts presented, then will the condition and origin of the water become known.

l thus be seen that standards can not well be used for deter-
the quality of a water, and that common sense and good judg-
the part of the analyst are essential.

ses of foods.—The following table shows the extent to which
ıtions were found to exist in certain food stuffs and the result
ɔcutions of such adulterations:

Substances.	Samples.		Cases prosecuted.	Cases convicted.
	Analyzed.	Adulterated.		
	42	32	22	21
	10	6	5	5
ırtar	8	2	2	2
d sulphur	8	2	2	2

nsed milk.—Several samples of condensed milk were analyzed
;he year with the following result:

Brands.	Solids.	Water.	Fat.
CONDENSED MILK.	*Per cent.*	*Per cent.*	*Per cent.*
	73.40	26.60	10.41
	74.65	25.35	9.89
	75.69	24.31	9.56
	73.50	26.50	8.96
	73.09	26.91	8.99
	74.35	26.65	9.21
	77.23	22.77	9.64
t	75.06	24.94	9.03
	76.74	23.26	9.60
	75.81	24.19	8.61
EVAPORATED CREAM. *a*			
	30.16	69.84	8.39

a Preserved with boracic acid.

e assumption that 3 per cent of fat is equivalent to 12 per cent of
ids, it will be seen that practically one half of the total amount
ɜ is derived from the milk, the other half being due to added
No preservatives other than sugar were found.

—As previously stated, 244 samples of milk were examined
;he year, 75 of which were collected at the Baltimore and Ohio
2 at the Baltimore and Potomac depot, 75 collected about the
d the remainder submitted by private parties. In general it
e stated that the condition and quality of the milk as furnished
ɔonsumer has continued to improve, and that only two cases
ɐt with where it was deemed expedient to take the parties into
r selling adulterated milk.

ıps the greatest improvement noticed in this connection is in
lition of the dairies, and while there is still room for consider-
ɔrovement, yet the condition of the dairies to-day is far superior
they were two years ago, and we can not, therefore, but believe
ther efforts in this direction will result in great good to the
;enerally.

essential, however, that there should be a law regulating the
ıture at which milk shall be kept and sold. This is, in my opin-
of the most important considerations relating to this subject,
uld receive early attention, for while the majority of dairymen

type of school buildings, it is fitting that we should give it our particular attention, in order that we may note its defects and make such improvements therein as may seem desirable and expedient.

Two of the buildings of this class which were examined, the Douglass and Greenleaf, are provided with fans for attaining this object, but the remainder depend upon heat for the motive power. Heated air rises, and this is the sole principle of heating and ventilating in all the schools with the exception of the two mentioned and one other. In these buildings, as above stated, fans are used for forcing the air into the rooms above, thus being independent of outside influences, such as the direction and velocity of the wind and the various conditions of the weather.

In the other buildings of this class, however, which depend upon indirect heat, it will be seen that the weather plays an important part, for the system consists of a window for the introduction of fresh air, furnaces or steam-coils for heating the same, and ducts for conveying it to the rooms above. To remove the air from the rooms one or two systems are in general use; either the air is allowed to escape through ventilators and make its exit up the chimney, or, as in the case of the Smead system, the same principle is used for removing the air as for supplying it, namely, a stack heater is so arranged as to heat the air in a chimney whose supply of air can only be obtained from the rooms. It thus acts as an aspirator to the rooms, by causing the heated air to pass up the chimney and drawing other air from the rooms to supply its place. To accomplish this a line of ventilators, each about 3 feet long and 4 inches high, are placed along the base of the floor, usually one under each window.

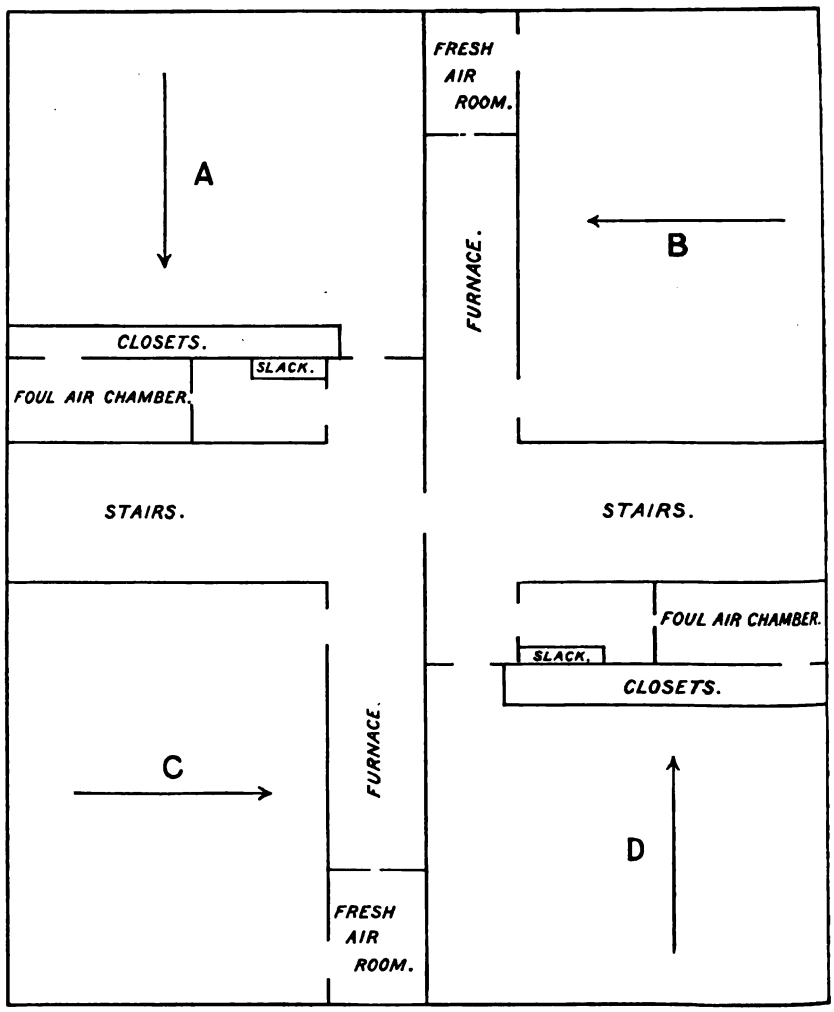
The Smead system.—With this system it will readily be seen that unless fans are used for forcing the air its successful operation depends, to a considerable extent, upon the direction and velocity of the wind; upon the degree of heat generated by the furnaces, and, indirectly, upon the temperature of the outside air, for the warmer the air the less the fire that will be kept in the furnace, and, consequently, the less the quantity of heated air that will rise to the rooms above, until when the warmer months of spring arrive and the furnace fires are allowed to go out the amount of fresh air entering the rooms from this source becomes very slight.

Then, again, should the winds be blowing in a direction away from the fresh-air windows, there is not only a tendency to decrease the quantity of air entering there, but there is also a tendency to reverse the entire system by diminishing pressure in the neighborhood of these windows. So that at times it simply becomes a question as to the power of the two opposing elements, with the chances of a reversal of the current greatly strengthened after the fires in the furnaces have been allowed to go out and the main motive power thus removed. When, however, the wind is in the direction of the windows, then the velocity of the air entering the room is greatly increased, and the chances of a reversal of the current or of a backward draft are reduced to a minimum.

In like manner the windows and doors also exert an influence on the successful working of this system, which will be better appreciated when we consider further the manner in which the air is removed from the rooms to the vent stack.

By consulting Plan A it will be seen that in the Smead system there are two stacks, each of which is required to act as a ventilating shaft for four rooms, two on the first floor and two corresponding rooms immediately above on the second floor. The foul air on leaving the rooms passes underneath the floors to the foul-air gathering rooms, from

A.



Arrows indicate direction of floor beams above.

whence it is drawn through the privy vaults or water-closets to the stack, up which it makes its escape.

It will be seen also that the stacks are located at the inner end of the closets, whereas the foul-air chambers are placed under the cloakrooms near the exterior wall of the building, thus requiring the air from rooms B and C to travel a much greater distance to reach the foul-air chambers and stacks than from rooms A and D. Still further, the position of the floor beams under the floors in rooms A and D form natural channels for the passage of the air from most of the ventilators to the foul-air chamber, whereas the air from rooms B and C, passing under the floors of A and D, finds its free passage retarded by the position of these beams, and can reach the foul-air chamber only by a winding course, first above and then between the beams. This passage of the air in a direction opposite these beams is made possible by the fact that the floor is laid on "furring," thus insuring a space of an inch between the floor and the beams. It will thus be noted that the course is not only winding in its nature, but that it is also at certain points very much reduced in size.

Such being the facts in the case, the result must be evident. Two adjoining schoolroom doors stand open; the one room with a short and direct course to the foul-air chamber, the other with a winding and much longer course. How could it be otherwise than that the one should be ventilated at the expense of the other? As a matter of fact, we will find that, such ventilation as it is, the one is ventilated through the other, there being less resistance for the air in B and C to pass out of the doors, across the hall, and through the ventilators in rooms A and D to the foul-air chamber.

We thus find a current of air established from one room to another which increases the working power of the ventilators in one room and diminishes it in the other.

In fact, if the current from the one room to the other is strong enough, then we will find a tendency to draw the air through the ventilators into the room, whereas in case the current is not strong enough, there will be merely a tendency to stagnation, no air passing in either direction through the ventilators in those rooms farthest removed from the foul-air chamber. It is therefore evident that, in order to have this system work to the best advantage, there must be no connection between the adjoining rooms.

It would thus seem that all that would be necessary to do would be to close the door, in which case, there being no escape for the air in this direction, it would be forced to find an exit through the ventilators. This is, in fact, exactly what happens, only the ventilators work so slowly that the air in those rooms soon becomes quite foul, and it seems necessary, therefore, that the door or windows must be opened. But then comes the danger of a reversal of the current, and it matters little whether it be doors or windows that are opened, for in the latter case they merely act as a large ventilator for the room, which, in case the wind is in the right direction, establishes a current from the rooms through the windows, and thus cause a backward draft through the ventilators by reason thereof.

In case, however, the wind happens to be blowing in the direction of the windows, then, owing to the entrance of the air through the windows, the pressure of the air within the rooms becomes considerably increased, and the result is, the action of the ventilators is greatly stimulated. Unfortunately, however, in this case the cold air from the windows blowing over the heads of the children cause unpleasant

drafts, which result in the windows being kept closed under those conditions. It would therefore seem that in order to avoid danger the windows must be kept closed at all times.

So it will be seen that the doors and windows play an important part in the proper working of this system, not only in regard to ventilation, but also in regard to heating; for where a current of air is established from one room to another, it will necessarily carry the heat with it; and this is made all the more possible from the fact that the registers are located near the doors. Consequently certain rooms are easily heated, while the others are heated with difficulty, and it is only necessary to locate the position of the foul-air chambers to tell which rooms those are, for in all cases those rooms which are most remote from the foul-air chambers will be found the most difficult to heat.

Care on the part of janitors.—There is still another condition that will influence to a considerable extent the working of this system, and that is the care bestowed upon it by the janitor. Of course, the greater the fires in the furnace the greater will be the quantity of air supplied the rooms, and consequently the greater the amount of coal will there be to shovel. If, therefore, the janitor is inclined to be negligent, he has only to shut off a portion of the fresh-air supply and furnish a higher degree of heat with a smaller quantity of air to the rooms above, and save at the same time both coal and labor at the expense of ventilation.

Regulation of the temperature.—The regulation of the temperature in the public schools is a subject of considerable importance, being necessarily associated with the ventilation. It is important that the temperature should approximate pretty closely 70° F., although a variation of one or two degrees either way might be allowed. In schools heated by direct steam radiation this temperature, with a little care, is easily maintained.

In the more modern schools, where indirect heat is used, there is an arrangement to overcome the difficulty of temperature by simply turning on or off the heat at the hot-air inlet. Two inlet flues are provided for each room, and a valve, called a mixing valve, is so arranged that when the hot air is shut off from the room cold air is turned on, and by regulating this valve any desired temperature may be obtained by allowing variable quantities of hot and cold air to flow together before entering the room.

This arrangement, while a good one, requires constant care and attention on the part of the teachers, much more than they should be required to give. Consequently, the heat is liable either to be turned on in full or entirely cut off, and as a matter of fact in no instance do I remember to have found the regulator in an intermediate position.

We find, also, with this system that these regulators not only regulate the rooms in which they are located, but that there is a tendency to regulate some of the other rooms also, which, according to my judgment, is one of the worst features of the system, for when the heated air is turned off from one room it increases the supply in another, and decreases the quantity of cold air. An automatic regulator would avoid this difficulty, and would supply the rooms with heat sufficient to maintain a constant temperature.

It was noticed that in the majority of schools a record was kept of the temperature, taken at stated intervals during the day. These figures would, however, hardly represent an average temperature or a temperature at any point where the pupils were seated, as the thermometer was usually located at some point along the wall. I should

ore regard these figures as misleading, or, at the best, as of little as an indication of the degree of heat to which the pupils were ted.

ideavored, as far as possible, to take the temperature at a point I considered would represent the average temperature, and have red a table accordingly, from which it will be seen that the maxi- and minimum temperatures are greatly in excess of what they l be in a great many instances.

Results of sanitary inspection of certain school buildings.

Schools.	Individual floor space.	With cloakroom.	Cubic space.	With cloakroom.	Temperature.		Relative humidity.		Average fresh air per pupil.
					Max.	Min.	Max.	Min.	
.....	16.2	18.5	227.5	259.4	71.6	64.7	41	35	.....
.....	18.9	23	264.6	325	77	68	57	25	.....
1.....	17.8	.....	267	.....	77	65	37	29	18.88
.....	S. 17.3	21.7	239.7	301.6	72.5	63.3	46	34	.....
	N. 21	24.5	294.8	343.8					
.....	16	19.3	224	270.5	75.2	65.3	29	20	.....
.....	18.7	20.9	262	293	76.6	69.8	37	28	.....
.....	16.8	19.8	235	278	76.3	68.7	28	23	16.4
.....	17.1	21	240	294	77.7	67	30	24	28.25
.....	18	21.9	248	301	75.9	65	37	35	29.1
.....	16.5	19.5	226	268	77.7	71.9	34	27	21.5
.....	17.2	20.8	238	289	76.6	64.4	37	29	29.75
.....	17.4	20.6	239	284	67.6	64	37	30	22.1
.....	16.5	18.8	218	251.9	74	68	35	26	E. 26.8 W. 65.7
r.....	17	20.3	238	285	79.5	61.8	34	23	16.9
.....	17.3	20.7	234	279	77	67	35	30	15
.....	19.5	21.7	273	304	73.4	66.2	35	25	33.8
.....	14.5	17.5	203	245	77	69.8	32	28	18.1
.....	18.3	21.6	257	302	72	64	36	33	30.3
af (fan).....	17	20.5	238	287	77	71.6	31	25	36
s (fan).....	16.5	20.5	225	279	75.9	65.4	33	29	39
.....	18	20.7	243	279	72.6	64	40	32	22.50
.....	17.4	20	227	260	76.6	70.3	43	40	11.3
(stoves).....	16	.....	208	.....	70	64	32	28	.....
econd examina-	.....	.....	.....	.....	.....	.....	.....	.....	E. 54 W. 35

a High wind.

-air ducts.—Not only should the supply of fresh air to the fur- or steam coils of the indirect system be sufficient, but the flues lead from the heaters and the registers should be of ample size, rwise there will be considerable inconvenience caused by the strong nts of hot air.

ome of the schools this is to a certain extent avoided by the use lectors, while in others, as the Douglas and Greenleaf, the air is luced from a register in the wall at a height of about 7 feet.

at present constructed, however, I think that the position of the er in these two cases is an error, as it results in a strong draft of st above the heads of the pupils. As an illustration of this, in nstance I placed the anemometer on the head of one of the pupils y in the last seat at the back of the room opposite the register. elocity attained by the anemometer showed a current of air trav- at about the rate of 60 feet per minute. As previously stated, tors assist in the prevention of these drafts, although I do not l their use as entirely satisfactory; for while they turn the cur- rom the pupils directly in front of the register, they cause incon- nce at the sides and along the aisles, besides being constantly in ay. The problem would therefore seem to be the introduction moval of sufficient air without causing drafts.

While I may not have sufficient knowledge in regard to the construction of buildings to make an intelligent recommendation, yet, being thoroughly convinced that the present method of introducing the heated air is objectionable, not only from the inconvenience caused, but also as contributing to colds and sickness, I would at least suggest that these currents might be avoided by largely increasing the size of the register and the upper portion of the duct. It is a well-known fact that when we wish to increase the force of a stream of water passing through a tube we do it by decreasing the size of the tube at the opening, while, on the other hand, we decrease the force by increasing the size of the opening. It appears, therefore, that were the register and upper portion of the duct extended the entire length of the room, these objectionable currents could be avoided. Such an extension of the register with washboard-like surface and openings accordingly would also cause a more equal distribution of the heat and a uniform temperature.

Foul-air flues.—The area of these should be larger than that of the inlet, in order to insure a proportional flow of the cooler air; they should be properly located, should run as straight as possible, and should be properly guarded.

In some of the schools we find ventilators both at the top and bottom of the rooms; and while this system will undoubtedly ventilate the rooms; if properly cared for, yet, owing to the difficulty of always having the upper ventilators in good working order, and owing to the constant care and attention required to properly adjust them, this system has grown into disuse, and there was hardly an instance in which I did not find the upper ventilators closed and the cords for manipulating the same rotted away.

In the more modern buildings, particularly those of the Smead pattern, we find the ventilators situated in the side walls, near the floor, which seems to be the best place to locate them, the only serious defect being the character of the gratings, which are made so cumbersome that they occupy fully one-third of the entire opening. This is entirely unnecessary, as their only function is to check the ventilation.

Disposal of excreta.—In ten of the schools examined the foul air from the rooms is used for drying the fecal matter. The closets are located in the foul-air ducts, that lead from the rooms down into the basement and so on into the main vent shaft. There is, of course, free communication between the closets and their contents and the schoolrooms. The sole dependence of the system, therefore, lies in a continuous current of air from the rooms, through the closets, and up the vent shaft. The natural flow must, of course, be in this direction, the aspirating power of the vent shaft being depended upon to furnish the motive power. If by any chance the fire in the stack heater goes out, then there is liable to be a reversal of the current.

In only one instance, however, did I find the fire out in the stack heater, due evidently to carelessness on the part of the janitor, who has since been removed. In general I found good fires in the stack heaters, so that whatever defects were found in the system could hardly be attributed to this source.

To my mind, the most serious defect seems to have been the attempt to combine at all this system with that of heating and ventilating, systems which are diametrically opposed to each other and which have no connection between them. For why should we be constantly running the danger of a backward draught; and why should the teachers and pupils be constantly blockaded behind closed doors and windows when there is no necessity; and why should the atmosphere be

poisoned and the soil polluted merely for the sake of retaining excreta upon the premises?

With this part of the system removed, back draughts lose part of their terror.

How often the reversal of the current from the closets to the schoolrooms takes place I did not determine, although it was my intention and yet my desire to make this investigation.

So far as my present investigations have gone, I have failed to find any evidence of a backward draught in the closets, although it is reasonable to suppose that they do at times occur, for this fact has been demonstrated elsewhere, and I myself have found a reversal of the current through the ventilators in a number of rooms in the various school buildings.

The subject of heating and ventilation is an important one and one which calls for considerable attention, for while it is possible to properly ventilate a building from a theoretical standpoint, yet the practical adaptation of the same demands the closest study and investigation. The work carried on in this line the past year should properly be considered as preliminary, for while it was carried on with thoroughness and care as far as it went, yet the very work itself disclosed so many other points for investigation that it would seem essential that the work should be continued another season.

Character of the air currents.—I have designated the currents as positive and negative, according to the direction taken by them, classing those as positive which pass from the room through the ventilators, while those passing through the ventilators into room are termed negative.

As above stated, negative currents were found in several of the schoolrooms. For instance, in the Blake School, examined February 2, first floor, northwest room, I found the total negative current, with the doors open, equivalent to 843 cubic feet per minute, while with the doors closed the positive current was equal to only 344 cubic feet per minute. In the southeast room I also found, under similar conditions, a negative current equivalent to 275.5 cubic feet per minute, while on the second floor, southeast room, I found a negative current of 9.8 cubic feet per minute from one ventilator, while the other showed no current in either direction.

Likewise in the Carberry, Arthur, Polk, Taylor, Tyler, and the Blake, on December 18, I found negative currents in certain rooms when the doors were left open; and while there was no indication that these currents came from as far distant as the ducts in which the closets are located, yet the very fact that these negative currents exist is sufficient, in my opinion, to condemn the dry-closet system. At the best they must represent an ingress of foul air, which, according to the inventor of the system, must be regarded almost as dangerous as the air from the fecal matter, considering that it is thrown promiscuously into the atmosphere.

I have prepared a table, which is appended, showing the amount of air per minute for each individual passing through the ventilators in the different rooms of the different schools, and have also arranged the list of the buildings in such order that the first ten represent those buildings having the dry-closet system. This table will show the results both with doors closed and opened, the figures in bold-face type representing the negative currents. It will be found instructive from the fact that, with one exception, all the negative currents occur in buildings having the dry-closet system. It will also be seen that, while these

negative currents are reversed to the positive by closing the dc
the same time they are very sluggish in those rooms farthest re
from the foul-air chambers.

Air passing through ventilators.

Schools.	First-floor rooms.								Second-floor rooms.					
	NE.		SE.		NW.		SW.		NE.		SE.		NW.	
	Doors open.	Doors closed.	Doors open.	Doors closed.	Doors open.	Doors closed.	Doors open.	Doors closed.	Doors open.	Doors closed.	Doors open.	Doors closed.	Doors open.	Doors closed.
Towers	13.7	19.6	8.6	14.4	15.5	18.3	11.1	16.1	16.4	18.1	7.1	14.9	17	17.6
Maury	0	5.5	9.3	8.9	8.9	12.2	3.9	3.4	4.5	5.7	12.8	10.8	12.6	10
Lenox	.....	17.9	.....	12.2	7.3	14.9	20.3	20.6	10.8	12.4	.....	9.8	5.9	11.2
Carberry	.....	19	.....	7.4	—1.1	9.1	—2	16.7	.....	11.5	.....	7	.....	6.1
Arthur	.....	9.4	.....	16.3	.....	15.2	—4.1	15	.....	8.3	11.7	11.7	.....	11.3
Polk	—.59	7	24.4	21.1	28.6	27.5	— .4	4.9	4	5.5	9.8	9.5	11.8	12.4
Blake (first)	.....	18.7	—4.4	8.3	.7	6.8	.....	20.9	.....	9.1	.....	7	.....	8.2
Blake (second)	33.9	33.9	—5.5	14	—16.8	6.8	30.1	31	15.7	15.7	—.19	9.9	7.7	13.3
Taylor	— .9 +1.5	3.5	24.4	21.7	18.8	17.4	—2.2	6.1	.....	9.9	.....	7.3	17	16.5
Tyler	20.4	—1.9 19.4	—.5	.9	—1.1	1.5	15.8	—.5 18.9	18	—.9 2.9	0	17.7	6	9.7
Douglass	19.2	22.5	27.1	29	32.3	33.9	18	19	17.7	17.7	8.7	14.7	15.2	15.9
Greenleaf	26.3	24.5	13.4	15.6	9.5	14.4	30.6	29.5	9.6	11.5	10.8	9.9	9.1	11.9
Blair	.....	4.3	.....	10	.....	13.3	.....	3.9	.....	3.2	.....	4.9	.....	2.9
Brent	9.4	9.4	9.2	10.3	9.3	9.6	5.4	5.7	8	7.2	14.3	12.6	9.1	9.1
Twining	9.7	10.3	5.6	5.6	4.3	4.3	7.9	9.2	13	10.8	4.6	4.3	6.4	6.4
Morse	5.1	5.6	10.2	9.6	9	8.5	5.4	6.8	5.9	3.8	9	10.3	11.8	9.3

DOORS CLOSED.

Schools.	First floor.				Second floor.				Third flo		
	NE.	SE.	NW.	SW.	NE.	SE.	NW.	SW.	NE.	SE.	N
Henry	14.2	0	0	11.4	6.9	0	0	7.5	4.6	0	0
Webster	15.3	24.5	33	30.2	16.6	22.5	21.7	27.6	3.9	5.5	14.
Peabody *a*	15.8	13.6	9.9	19.8	19.3	19.1	15.8	18	25.3	23.5	23.
Gales	.....	14.7	11.5	11.2	14	12.8	15.8	8.8	21.3	16.8	15.
Cook	14	Office.	16.9	12.5	19.6	18.8	30.1	17.2	.....	.....	.....
Seaton	9.5	10.4	6	8	6.7	6.7	9.3	6.5	3.2	7	3.
Lovejoy	.....	6.1	.....	.....	11.1	7.3	.....	.....	0	0	.....
Franklin *b*	8	9.8	9.1	10.2	8.1	.....	7.6	.....	6.1	5.7	21.

a North, middle, second, and third floors and attic, 0.
b First floor: East room, —2.9, +2; west room, 13.7. Second floor: East room, 6.3; west re
Third floor: East room, 6.9.

Fresh air supplied per pupil.

Schools.	Rooms.		
	N.	S.	E.
Morse	15	18.8	.....
Polk	30.5	26	.....
Blair	22.9	21.3	.....
Maury	19.5	10.5	.....
Brent	22.3	14	.....
Douglass	41	37	.....
Arthur	.....	.....	33.1
Twining	.....	.....	21.97
Blake	.....	.....	32.5
Blake (second examination)	.....	.....	54
Taylor	.....	.....	26.8
Carberry	.....	.....	16.8
Towers	.....	.....	35.4
Lenox	.....	.....	25.8
Tyler	.....	.....	16
Greenleaf	.....	.....	31

It may be here claimed, however, that since the required amount of fresh air enters the rooms the balance of the foul air is driven out through the doors and windows. This statement appears reasonable, but the stifling oppressiveness experienced in those rooms is a strong argument against this explanation, and I have no doubt that further work in this line will clearly demonstrate that the foul air is not so replaced.

Owing to the influence exerted by one room over another in heating and ventilating, it is somewhat difficult, while the school is in session, to accurately measure the air at the hot-air inlets. In addition thereto, we find various conditions of the currents themselves which affect the accuracy of the measurement, such as positive and negative currents and dead areas.

In order, therefore, to measure the amount of air entering the room from this source, it is necessary to extend the duct for a foot or two into the room, to overcome the influence of the right angle which the currents have to make in entering the room, and also the influence of the gratings, which give rise to negative currents and dead areas, respectively.

I have, therefore, in general measured the air in the fresh-air chambers where these conditions do not exist, and have apportioned to each room one-fourth of the total amount, since each fresh-air chamber supplies four rooms.

I have then divided this number by 50 in order to obtain the number of cubic feet of air allotted to each individual.

The table which is appended will show the number of cubic feet of fresh air per individual per minute in the school buildings of this pattern.

I now desire to call your attention to one building examined which combines in part steam heat with the Smead system of dry closets, namely, the Henry School building.

This building contains twelve schoolrooms, six of which, namely, the northeast and southwest, are connected by ducts with the closets and furnish the air for drying the excreta, while the other six are entirely cut off from any system of ventilation except such as nature provides. Generally speaking, I am of the opinion that this is one of the poorest ventilated school buildings in the city. Certainly it is the poorest that I have thus far examined. Why there should have been an attempt to introduce this system here I am unable to understand, as the building was originally much better ventilated than many of the other old-style buildings, and the very introduction of the system seems to have necessitated the cutting off of six rooms from all means of getting rid of their foul air.

Whatever may have been the merits of the dry-closet system in the other buildings, it certainly was a mistake to introduce it here; and not only a mistake, but a source of danger, as the odor from the fecal matter is at times perceptible through the building, and I can do no better, therefore, at the outset than to recommend its removal at the earliest opportunity.

In addition to the fact that six rooms are entirely devoid of ventilation, we find the other six but poorly ventilated, there being no supply of fresh air and only a partial removal of the foul air. To add to this discomfort, there being no inlet for fresh air to the furnaces for combustion purposes, their supply is at times drawn through and around the stack heater, polluting the air with foul odors, which eventually find their way into the rooms above.

out of the ventilator again, which has a direct and unimpeded c
to the foul-air chamber.

This further demonstrates the necessity of having the foul-air
direct and as short as possible, while both theory and science
us that in order to produce like results the conditions must b
same, and that it is folly to expect to ventilate two rooms alike
ducts are of unequal length and size and the motive power the sa

What can we expect under such circumstances but that one
will be ventilated to the prejudice of the other?

A glance at the table will show us that this is so in every case
these conditions exist, the relative proportion of air passing out o
ventilators being dependent upon the quantity of fresh air introd
into the rooms.

This will be shown more clearly by an examination of those buil
in which fans are operated.

In the Douglass and Greenleaf school buildings it will be no
that the amount of foul air leaving the rooms is considerably incre
and also that the ratio of the quantities in the different roo
decreased. This may be due in part to the improvement in the sy
and to the location of the foul-air chambers, although I am o
opinion that it is due chiefly to the increased pressure of the air i
rooms caused by the fans.

In these buildings with the fans in operation the ventilation se
to be ample, and there was none of that oppressiveness noticed i
other buildings. So that I am of the opinion that with a more exte
inlet for the hot air and some system of regulating the temper
independent of the teacher that this system would meet all the req
ments of heating and ventilation.

I might add, however, in addition, that in all the schools some
should be adopted for increasing the supply of moisture. This
be accomplished by having pans of water placed over the furn
with automatic connections to allow water to flow in to take the
of that evaporated. This is an important consideration, and one
I would especially call your attention to.

In the Morse, Brent, Twining, Blair, and the Cook school build
we find a slightly different system, in that the closets are located i

steam or by a combination of steam and indirect heat, with the exception of the Lovejoy School building, which is heated by stoves.

These buildings must of course depend largely upon the windows and doors for their supply of fresh air, although all of them are supplied with upper and lower ventilators. The upper ventilators have, however, in all cases fallen into general disuse, and I found them all closed, and from their condition it was evident that they had not been in use for some time.

In the Peabody School, however, we find three rooms in use which are entirely devoid of ventilators. Two of these rooms were originally intended for teachers' rooms, while the third is a sort of makeshift located in the attic. The windows being located on one side of the room only prevents their use as ventilators a good part of the time, it being impossible to use them for that purpose when the wind is in their direction.

If these rooms must, therefore, be used for school purposes, it is essential that some means be provided for ventilating them.

In the Lovejoy School, as previously stated, stoves are used for heating, with upper and lower ventilators for removing the foul air. While this system will do very well for rooms in which there are only a few occupants, modern science now rejects such a system for schools. Moreover the stove itself acts as a consumer of oxygen, and while it is constantly drawing in fresh air to replace that consumed the amount is not sufficient to meet the requirements of a schoolroom. In addition thereto the unequal distribution of the heat is very objectionable. I regard it as unnecessary to dwell on this method of heating and ventilating, as it must be apparent to all that it is unsatisfactory and inadequate.

In conclusion, therefore, it must be conceded that the best system of ventilating a building is by means of a fan, and although this method may be a little more expensive, yet this item should not be considered when we take into consideration the health and comfort of the children.

So far as the dry closets are concerned, I think it was a mistake that they were ever introduced, and I would recommend their removal at the earliest opportunity.

With this system of dry closets disposed of once for all, the way to a better system of ventilation seems clear, and in the construction of new buildings but few additional changes would be necessary.

Of course it is desirable that the foul-air ducts from some of the rooms should be shortened, in order that the aspirating power of the vent shaft may affect all the rooms alike.

In order to do this, it is necessary to change the location of the foul-air chamber and run flues direct to this from the different rooms.

This has in part been done in the Douglass and Greenleaf school buildings, although I am of the opinion that the effort would be attended with greater success were the vent stacks located nearer the middle line of the building. If this can not be done, then some method for forcing the air up the vent shaft should be adopted, as well as some means for regulating the effect on the various rooms. This seems to me to be an important consideration, and one which calls for considerable study on the part of those engaged in the construction of school buildings from a sanitary standpoint.

While therefore it is evident that there are defects in our present system of heating and ventilating school buildings, yet it should be remembered that the advance made in the methods of such buildings as the Douglass and Greenleaf over such buildings as the Franklin, Seaton, Gales, etc., is most marked, and that great credit is due those

who have given this subject and these buildings their attention, for I do not hesitate to state that the ventilation of these buildings stands in as great a contrast to old-style buildings as daylight to darkness.

It will thus be seen that rapid progress has been made in the subject of heating and ventilation, and I have no doubt but that this progress will continue until within a few years we shall have reached as near a state of perfection in heating and ventilating as it is possible to attain.

Very respectfully submitted.

J. D. HIRD, M. A., *Chemist.*

Dr. W. C. WOODWARD, *Health Officer.*

INVESTIGATION OF CERTAIN SAMPLES OF CANDY.

I have the honor to submit the following special report relative to the investigation of certain samples of candy offered for sale:

The general conception of a pure confection would allow of an admixture of saccharine matter with harmless coloring and flavoring substances, thus making them pleasing to the taste and attractive to the eye; but when, on the other hand, such substances as kaolin or terra alba are incorporated for the purpose of increasing the weight, or when injurious coloring matters are added to increase their brilliancy, then they can not be regarded otherwise than as impure and detrimental to health, and the manufacturers of such products deserve the severest censure.

For the most part the samples of confections obtained for analyses were those which I anticipated would most generally suit the finances and attract the eye of school children, being highly colored and of the cheaper grades.

In all, 42 samples were examined, particular attention being paid to the coloring matter contained therein.

Coloring matters are divided naturally into two classes, organic and inorganic, the former comprising the group of vegetable pigments, cochineal, and the coal tar colors, while the latter would embrace the metallic compounds, principally the oxides and chromates.

Before the introduction of these coal-tar colors the metallic pigments were used quite extensively, this fact being well illustrated by Hassall, in his work on food adulterations, who makes the following summary of the coloring matter found in samples of confectionery analyzed by him:

Yellows: 59 chromate of lead, 11 gamboge.

Reds: 61 cochineal, 12 red lead, 6 bisulphuret of mercury.

Browns: 8 ferruginous earth.

Purples: 2 antwerp blue and cochineal.

Blues: 1 indigo, 11 prussian blue, 11 antwerp blue, 15 ultramarine.

Greens: 10 brunswick green, 9 scheele's green, and 1 carbonate of copper.

Such a combination could not but produce the most injurious effects, as the majority of them are poisonous in their nature.

Since the introduction of the coal-tar colors, however, these compounds are but little used, and in the entire number of samples examined by me not a trace of any mineral pigment was found.

In this connection Dr. H. W. Wiley, in Food and Food Adulterants, Bulletin 13, United States Department of Agriculture, states that—

> It has been claimed that lead compounds have been used for coloring candy, especially lead chromate, but our investigations have shown that inorganic colors are not used to any very great extent in this country.

We have, therefore, to deal practically with but three varieties of mpounds, those of direct vegetable origin, those derived from the ccus cacti, and the coal-tar colors.

Inasmuch as it may be assumed that the vegetable pigments and ose derived from the coccus cacti are harmless in their nature, we ay, therefore, eliminate those two classes of compounds and turn our tention wholly to the coal-tar colors. For these colors it is claimed at many of them are harmless, and as they have been used exten-vely for several years without apparently producing any injurious fects the statement is probably correct, although unfortunately our esent knowledge of these compounds is so limited that we are unable aver that what is true of some is true of all, and, therefore, are able to determine where the line shall be drawn. On account of eir brilliancy but little of the compounds are required to produce the sired effect, which must be accepted as a factor in their favor, but til it can be shown conclusively that these coloring matters are rmless, their use should be restricted.

For the purpose of classification the coal-tar colors are usually divided to a number of groups, each of which deals with those products tained from the same constituent of tar. Thus we have (1) coloring atter from benzene and toluene, (2) phenol coloring matters, (3) naph-alene coloring matters, (4) anthracene coloring matters.

These groups are still further divided into classes having some gen-al characteristic; as, for instance, the analine dyes derived from the st group are those which contain nitrogenous bases or their com-unds, while the phenol dyes are in general of an acid nature, due to e hydroxyl group or groups contained in them. Likewise, with the her groups we find certain well-defined characteristics. Yet, since any of the coloring matters are compounded from the different groups, study of any one particular compound of a class is of little value in etermining the nature of the other colors derived from the same group groups.

Owing, therefore, to the numerous compounds that may be formed om the different groups, some of which are basic while others are id in their nature, the separation and classification of the compounds esent a difficult task, and the work of classifying a coloring matter und in a sample of candy, in the light of our present knowledge, is tentimes almost an impossibility.

Among the coloring matters found by me in the samples examined ere vegetable colors, cochineal, magenta, eosine, carmine, fluorescein, safranine, lampblack, and a few fluorescent colors that could not be entified.

Of the above coal-tar colors safranine is the only one that has had jurious properties attributed to it, and these were probably due ore to the arsenic used in its preparation, and which was probably not tirely removed, than to the compound itself. It is, therefore, proba-e that, so far as the coloring matter in candy is concerned, we have tle to fear that any dangerous effects will follow its free consumption.

In regard to the other constituents making up the body of the candy, found, among other things, cocoanut, ceraline, glucose, maltose, dex-in, starch, gum, gelatin, paraffin, grease, flour, egg albumen, clay, id licorice. In one instance I purchased ten sticks of candy for a nny, which product, on examination, turned out to be made up entirely flour and sugar of milk.

On another occasion I purchased some alleged chocolate drops which nsisted of balls of flour coated with brown clay to represent chocolate, id which contained just enough sugar to give them a sweetish taste.

In two instances I found cocoanut adulterated with ceraline, while several of the sticks of candy were coated with paraffin to prevent their sticking. Gum drops for 5 cents per pound were found to contain lampblack, while several of the light forms were made up of albumen, milk, and sugar. In general, however, it might be stated that the materials employed in the manufacture of candy are not such as would be considered injurious to health, although it must be conceded that some of the substances used might well be dispensed with.

To be sure, lampblack, ceraline, and clay are not very desirable articles of food, but their occurrence in candy is comparatively rare, being usually found only on such occasions as when certain firms make special reductions on the price of their commodities for a certain day and date. But what can one expect for 5 or 10 cents per pound? If, therefore, the public demand such cheap stuff, then they are in part responsible for the character of the goods furnished, and any effort to prevent their manufacture and sale is rendered ineffectual.

Among the samples examined by me as showing the nature of the goods selected might be mentioned cheap gum drops, cocoanut balls, chocolate-covered figures; various penny forms, such as fish, ears of corn, shells, chocolate and cocoanut squares, various colored lozenges, various colored and assorted sticks of candy, licorice sticks, colored marbles, chocolate drops, peanut balls and taffy, colored popcorn, etc.

As the result of this investigation, I am of the opinion that the candy found in this market is for the most part composed of material which would not be considered injurious to health, although I am also of the opinion that such substances as flour, starch, paraffin, grease, etc., are not desirable in confections.

I might add that while engaged in this examination I visited the principal wholesale candy houses and manufacturing establishments; that I was impressed with the care and cleanliness exercised in the manufacture and handling of this commodity.

Respectfully,

J. D. HIRD, M. A., *Chemist.*

WM. C. WOODWARD, M. D.,
Health Officer.

TERINARIAN.

TON, D. C., *July 1, 1897.*
wing report to your depart-
:

.....	351
.....	15
.....	39
.....	28
.....	32
.....	192
.....	2,253
.....	39
.....	12
.....	5
.....	5
.....	23
.....	377
.....	65
.....	18
.....	1
.....	2
.....	5
.....	22
.....	15
.....	5
.....	1
.....	4
.....	92
.....	4
.....	1
.....	3
.....	3
.....	1
.....	1
.....	6
.....	3
.....	1
.....	1
.....	20
.....	2
.....	35
.....	1
.....	24
.....	2
.....	8
.....	2
.....	3
.....	1
.....	36

77

For the Washington Asylum:	
Professional visits	4
Horses condemned as of no value	2
For the health department:	
Professional visits to pound	7
Horses condemned as of no value	3
Horses at hospital	3
Days at hospital	8
Inspection of dairy farms	405
Inspection of slaughterhouses	31
Inspection of stock yards	5
Horses examined for contagious disease	3
Horses condemned as having glanders	2
Original inspection, cows condemned as unfit for dairy purpose	35
Secondary inspection in District	52
Cows condemned at original inspection outside of District by this office	38
Secondary inspection outside of the District by this office	15
Total number of cows condemned by District veterinarian	140

Since the passage of the law regulating the sale of milk in the District of Columbia, there has been a great change in the sanitary condition of the dairy farms of the District.

The general condition of the cows has been improved, both as to flesh and cleanliness. Before the passage of the act hundreds of cows were to be seen with manure honeycombed to them; to-day a cow in this condition is hard to find. Consequently there is a change in the milk, the amount of sediment being reduced to a minimum.

The change in air space has lessened the cause of many diseases. The separation from the herds of all cows with diseased udders, or other diseases which were liable to render the milk unwholesome, has placed on the market a milk which is of a better quality than was brought to this market previous to the enforcement of the dairy regulations.

The milk supply of this city comes from Virginia, West Virginia, Maryland, Pennsylvania, and the District of Columbia. In four States sending milk to this market, 510 farmers with 9,317 cows find a market for their product; while in the District we have 194 dairy farms with 1,356 cows, making a total of 704 farmers engaged in the product of milk, using 10,673 cows.

In granting permits to these people a system was adopted outside of the District of having the owner fill out a blank describing the premises, with a portion to be filled out by a veterinary surgeon, who should certify as to the health of the cow. We find that this system was a failure, as is shown by the fact that many thousands of cows were examined without finding a diseased one. For instance, there were only 52 cows found unfit for dairy purposes in the original inspection by veterinarians employed by the farmers, out of 9,317; while one veterinary alone, in the examination of a few hundred, found 45 out of the 52 in 28 different herds, showing that disease existed if it had been looked for.

In 12 herds inspected by this office outside of the District, 23 were found unfit, and in reinspection outside of the District, of 4 herds, 15 were found unfit. In the District, out of 194 farms inspected with 1,356 cows, 52 were found unfit, and these were located on 37 different farms. As can be seen by this, if 1,356 cows show 52 unfit, 9,317 should show 365 as unfit, so it is fair to presume that if a careful inspection were made of all the dairy farms in and out of the District, that at least 400 cows would be found totally unfit for dairy purposes, and yet the milk from these cows is the food product upon which we all depend for the feeding of our children.

The conditions which have been examined into in the inspection of dairy farms are numerous. We have,

First. The physical examination of the cows.

Second. The inspection of the stable from a sanitary point of view. In this the air space is taken into consideration, 600 cubic feet being required for each animal. The height, ventilation, condition of floor and drainage from it, the condition of feed trough and character of feed used. The location of manure pile, which is very important, to see that it does not contaminate the water supply, or the odor from it the milk.

Third. The water supply is examined into to see that it is not polluted.

Fourth. The milking utensils, the condition in which they are kept, the mode of cleaning, and the method of cooling and delivering. Two other considerations should be taken into consideration; one is the condition of the person handling the milk, the other is the condition of the wagon used for delivering.

No person should be allowed to handle milk who is himself unclean, nor should a wagon be used which is used for various other purposes, such as hauling manure, garbage, and brewers' grains.

Many of our farmers do not seem to realize the importance of sufficient air space, and it seems to me that this is due to the fact that they have no knowledge of the amount of air required. By referring to Smith's Manual of Veterinary Hygiene we find a table prepared, which shows the amount of CO_2 contained per thousand, with 600 cubic feet of air space, to be 5.03 per cent after the first hour; amount of air necessary for first hour 14,400 cubic feet; amount necessary each hour after first hour 15,000 cubic feet. With 1,200 cubic feet of air space we find 2.50 per cent of CO_2 after the first hour; amount of air necessary during the first hour 13,800 cubic feet; amount after first hour 15,000 cubic feet. This shows plainly why it is necessary to have a large air space and plenty of ventilation.

Too much stress can not be put on the necessity of having a pure and plentiful water supply, and to do this it is absolutely necessary to see that the wells or springs are not polluted with the drainage from privies or manure piles, so that the location of a well, from a geological point of view, is of paramount importance. It is a well-known fact that a well may be located close to privies or manure piles and not be polluted, but that is because the subsoil drainage is in an opposite direction.

Often we have found that the well is located in the barnyard or at a point where the natural drainage from privy, barnyard, etc., is directly to the well. In these cases it is impossible to have pure water. Again, some of the dairy farms are located so that the water supply is too far from the dairy, and it is impossible to have a plentiful supply. Under these conditions it is very hard to keep a place clean and in a good sanitary condition, hence the place is unfit for dairy purposes.

The necessity of the inspector examining and milking each cow can not be dwelt on too much, as we have found many cows being used for dairy purposes which were giving diseased milk, and the owners claimed no knowledge of the milk being bad until it was pointed out by your inspector.

The character of the feed is also important. We have found that brewers' grains form a large share of the food supplied to milch cows for the purpose of flushing the supply. When these are fresh and sweet I do not think they do any harm, but when rancid should be condemned for feeding purposes, as they impart an unnatural flavor to pure milk.

The nature of the pastures should also receive some attention, and

and after slaughter have been given such attention as time woul
mit, and, from the inspections made, plainly show the necessity of
ing all meat placed on the market for human food inspected a
time of slaughter.

The class of cattle killed on this market compares very favo
with that killed at the best slaughterhouses in the country. A
the young cattle we find very few which are unfit for food, but
the old cows which have been used for dairy purposes are slaught
then a different aspect is presented, and it is safe to say that one-f
of these have tuberculosis or other disease which renders the meat
for food.

In the slaughtering of sheep we find that a very large percenta
those which come from the southern part of the country have ca
deposits in the intestines, liver, and lungs which contain a worm n
by Curtice *Columbianum oesophagostoma*, and described by him.

In the hogs the principal disease found was that of verminous
chitis, and over 90 per cent of all the lungs from hogs killed sho
presence of the parasite, while the intestines contain large numb
long, flat worms (*Echinorhynchus giges*) with their heads embedd
the intestinal walls.

For the protection of the public a close inspection should be ma
all animals killed for human food, and in all cases of contagiou
eases the whole carcass should be condemned. This can only be
by having all slaughtering done at a set place, and I would str
advise the establishing of a public abattoir and no meat allowed
sold unless it bear the stamp of either the District inspector o
Agricultural Department when coming from other stations. This w
insure to the consumers a pure food and no doubt lessen the perce
of death from that much dreaded disease, tuberculosis. The
from these animals having tuberculosis is being consumed every
and this to my mind accounts for the large mortality among the p
classes, who buy cheap meat when it is offered for sale.

The only excuse that can be offered for allowing diseased cattle
sold in our markets is that after slaughter, when the meat is offer
sale, it is a very difficult matter to detect that which is diseased
at time of slaughter there is no difficulty offered and a competen

I inclose for your consideration a number of resolutions which were passed by the United States Veterinary Medical Association at its last meeting.

In conclusion, I would recommend that four additional veterinary surgeons be employed by the District, under the health department, so that the consumers of milk and meats can be properly protected against diseased products.

I would also ask that the pay of this office be raised to $1,800 per year.

I have the honor to remain, sir, your obedient servant,

C. B. ROBINSON, V. S.

Dr. W. C. WOODWARD, *Health Officer.*

RESOLUTIONS.

Whereas the character of the milk supply of a city is of the greatest importance to the health of the public, and a contaminated milk supply is often followed by widespread suffering and numerous fatalities; and

Whereas the wholesomeness of the milk supply is of equal importance with that of the water supply, for the improvement of which such intense efforts are frequently made; and

Whereas milk is contaminated in a great variety of ways, some of them so obscure that they are frequently overlooked, and require expert knowledge for their detection, and the usual city inspection, consisting merely in the detection of added water, is entirely insufficient for the proper protection of the public, and an inspection is required that includes the observation and correction of defects of all phases and stages of the operations of milk production and distribution: Be it

Resolved, That a thorough veterinary system of dairy inspection is hereby recommended to all boards of health, with the belief that it will exert an important influence for the protection of public health, the preservation of infant life, and the betterment of the diet of the people through the increased consumption of safe and wholesome dairy products.

Whereas the tuberculin test has been proven to be the only reliable ante-mortem means yet discovered of determining the existence of tuberculosis in its obscure forms; and

Whereas the repetition of this test on the same subject tends to lessen the characteristic reaction, thus producing a nonresponsive condition of the animal, which may be mistaken for soundness; and

Whereas these facts may be and are taken advantage of by the irresponsible and unscrupulous to aid in the disposition of diseased animals: Be it

Resolved, That the private employment of this test, except as supervised by competent and responsible persons, is fraught with danger to the public.

Whereas the small slaughterhouses in the country districts, as well as in cities, are difficult of proper inspection and supervision, as they are so widely separated and are operated irregularly; and

Whereas unscrupulous parties take advantage of this fact to have animals in a diseased and unsound condition slaughtered for food at such places, thereby menacing the public health: Therefore, be it

Resolved, That the United States Veterinary Medical Association recommends the prohibition of small and widely scattered abattoirs and the establishment of central slaughterhouses, with municipal ownership, if practicable, where constant and rigid supervision may be enforced,

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Whereas rabies of dogs and other domestic animals prevail in certain sections of the United States; and

Whereas this disease causes much distress and anxiety, both as a result of actual infection and from frequent unnecessary alarm through fear of the disease when it does not exist: Therefore, be it

Resolved, That the sanitary authorities of the various localities should take some action, both to allay unfounded alarm and to suppress the disease whenever it occurs.

APPENDIX D.

LAWS AND REGULATIONS RELATING TO PUBLIC HEALTH.

The following laws and regulations have, in the issue of this report, been compared with the official copies thereof. Wherever, therefore, a discrepancy exists between them and between the corresponding laws and regulations as they have appeared in previous reports, the text below may be accepted as correct.

ACTS OF THE LEGISLATIVE ASSEMBLY, DISTRICT OF COLUMBIA, AFFECTING THE HEALTH DEPARTMENT.

CHAP. CVIII.—AN ACT prescribing the duties of certain officers for the District of Columbia, and fixing their compensation.

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SEC. 13. *And be it further enacted*, That it shall be the duty of the coroner to hold an inquest over any person found dead in the District of Columbia, when the manner and cause of death shall not be already known as accidental or in the course of nature. No coroner's jury shall receive any fee or compensation for services as such, and said coroner is hereby authorized and empowered to issue his certificate to the auditor for the payment of such expenses as may be necessary for the interment of any person over whom he has held an inquest and whose body is not claimed by friends or relatives: *Provided*, That the amount of such expenses shall not exceed the sum of ten dollars. He shall make a monthly report to the board of health of the number of inquests held by him during the month last past before said report, with a full description, as far as may be, of the age and sex of persons, color and nationality, the cause and mode of their death, and such other particulars as may be necessary to their identification, in case of strangers and unknown persons. He shall also, immediately after holding any inquest, deposit in some bank in the city of Washington, subject to the order of the governor, all moneys, and all other property and other effects with the property clerk of the police department, which shall be found upon the person of those over whom he shall hold inquest, as hereinbefore provided. He shall receive a salary of two thousand dollars per annum, and give bond, to be approved by the governor, in the sum of five thousand dollars, conditioned for the faithful performance of his duties.

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Approved August 23, 1871.

EXCERPTS FROM WEBB'S DIGEST OF THE LAWS OF THE CORPORATION OF WASHINGTON, RELATING TO PUBLIC HEALTH.

SEC. 1 (page 5). It is not lawful for butchers or other persons to keep beef cattle or other animals intended for slaughter within seventy-five feet of any dwelling house, without the consent of both the occupant and owner of said dwelling; and it shall be the duty of the police officers to notify persons so offending to immediately remove such animals, and if the person or persons so notified shall refuse or neglect to obey within twenty-four hours thereafter, they shall be subject to a fine of five dollars, and a fine of twenty dollars for each day the said cattle are suffered to remain, and any police officer refusing or willfully neglecting to perform the duty prescribed shall be punished by a fine of five dollars, and shall be dismissed from office, said fines to be collected and applied as other fines under this corporation.

SEC. 2 (page 44). It shall be unlawful for any person to store, put, or place bones which shall have been purchased or bartered, in any house, storeroom, stable, building, or place, within two hundred feet of any dwelling house, other than the dwelling house of the person storing such bones, under a penalty of five dollars for each

every day that the same shall be stored, put, or placed as aforesaid; and it shall ınlawful for any person, or persons, to store old rags which shall have been pur-sed or bartered, in any house, storeroom, stable, building, or place, within fifty of any dwelling house, other than the dwelling house of the person storing ı rags, and the entire stock of old rags, so collected and stored, shall be removed n the premises, or shipped at least once in every fifteen days; and any person ersons storing old rags, or refusing or neglecting to remove the same, in accord-e with these provisions, shall be liable to a fine of five dollars for every day that shall so offend.

EC. 1 (page 50). It shall not be lawful for any person or persons to erect any tesmith or blacksmith shop within thirty feet of any dwelling house inside of limits of the corporation, or within that distance of any dwelling house to nd any whitesmith or blacksmith shop now erected, under a penalty of not less ı two nor more than five dollars for every day such erection or extension shall ain after notice shall be given by the mayor for the removal thereof, to be col-ed and applied as other fines.

ECS. 1 and 2 (pages 119 and 120). It shall not be lawful for any person or per-ı to keep, provide for, or maintain within the limits of the city of Washington, w yard, pen, or stable for dairy or other purposes, nearer than two hundred to any dwelling house other than the dwelling house of the owner or keeper uch yard, pen, or stable, under a penalty of not less than one nor more than five ars for each day's offense so continued; to be prosecuted and recovered as other s and penalties due the corporation are prosecuted and recovered: *Provided, ever*, That nothing herein contained shall apply to persons who keep but two s for their own immediate use; and this section shall be so construed as to per-the selling of milk by persons who keep one or two cows.

EC. 2. The owner or keeper of any cow yard, pen, or stable, or other place where s are kept, within the limits of the city of Washington, shall daily remove the ı from and keep clean such yard, pen, stable, or other place, under a penalty of less than one nor more than five dollars for each and every offense, to be overed as other fines are.

EC. 8 (page 214). It shall be the duty of each and every person occupying a elling house or store, or any other kind of building, to have the paved footwalk gutter in front of his, her, or their premises cleaned daily from the first of y to the first of December, by collecting the dirt from such gutter into piles, to emoved under the direction of the commissioners of improvements so soon as sible after it has been collected; and any person or persons who shall fail or se to have the paved footwalk or gutter in front of his, her, or their premises ned as hereinbefore provided, shall be subject to a fine of not more than five less than one dollar for each and every offense.

EC. 9 (page 214). If any person or persons shall cast, place, or lay, or cause to be t, placed, or laid any rubbish, oyster shells, shavings, or offal, or refuse substance ny kind whatsoever of his, her, or their trade, occupation, or business; or any coal, wood, ashes, barrels, hogsheads, or casks of any kind; boxes, foul water, dye ter, or offal from soap and candle or other manufactories; filth, stable manure, or offensive substance or obstruction in any street, avenue, open space, public res-ation, alley, or open lot, or so that the same may run into any improved street, nue, public reservation, alley, open space, or open lot, or in the gutters of any h street, avenue, public reservation, open space, or open lot, or on any pave-nt, and shall not remove the same on the day on which the same shall have been placed as aforesaid—every person so offending or directing, or ordering the same be done, shall forfeit and pay not less than one nor more than five dollars, and further sum of five dollars for each and every day the same shall be suffered to main, except the article of firewood, which may remain forty-eight hours and no ger on such street or avenue, not including the pavement thereof: *Provided*, at it shall and may be lawful for any person or persons engaged in erecting or airing a building to occupy with the materials used in making such building, repairing the inside half of the breadth of the footway and one-third part of the adth of the carriageway, and no more, in front of any lot on which the building eing erected or repaired; said materials to be placed in such position and so anged as may be approved of by the commissioners of improvements, under a alty of not less than five nor more than ten dollars for each offense; and a fur-r penalty of a like sum for every day the same may be suffered to remain; to be overed from the owner of the property, or the contractor for the erection or airs of the building; and all materials and rubbish shall be removed by the con-ctor or owner of the property within five days after said building shall be mpleted.

EC. 1 (page 316). It shall be unlawful for any owner or owners to occupy, rent, cause to be rented any dwelling houses or tenements without providing for each

and every dwelling house or tenement a suitable privy for the use of the occupant of such dwelling house or tenement; and if any owner or agent shall neglect or refuse to provide such privy, he shall forfeit and pay a fine of five dollars for each and every week of such neglect or refusal; and it shall be unlawful for any person or persons to make any excavation under any privy within the city, under a penalty not exceeding ten dollars for each offense.

SEC. 5 (page 358). In all cases where a drain shall be made from any lot, house, or other property into a public sewer constructed by this corporation, there shall be a good and sufficient copper or cast-iron strainer inside of the basement or cellar wall of the property so drained, to prevent any vegetable matter or filth in a solid state from passing into the sewer; and such cellar or basement shall at all times be subject to the inspection of such person as may be authorized by the mayor or corporation to examine the same; and if at any time the strainer shall be found worn out or choked with filth, or if the drain itself shall be choked with filth, the owner or occupier of the premises, either or both of them, shall be fined not less than five dollars nor more than ten dollars for the first offence, and not less than ten dollars nor more than twenty dollars for the second or any subsequent offence, and five dollars for every twenty-four hours during which the strainer or drain shall remain out of repair or be choked up; the said fines to be recovered as other fines of this corporation are recovered.

ACTS OF CONGRESS RELATING TO THE PUBLIC HEALTH IN THE DISTRICT OF COLUMBIA.

Extract from An Act to provide a government for the District of Columbia.

[R. S. D. C., Sec. 72.]

There shall be appointed by the President of the United States, by and with the advice and consent of the Senate, a board of health for said District, to consist of five persons, whose duty it shall be to declare what shall be deemed nuisances injurious to health, and to provide for the removal thereof; to make and enforce regulations to prevent domestic animals from running at large in the cities of Washington and Georgetown; to prevent the sale of unwholesome food in said cities; and to perform such other duties as shall be imposed upon said board by the legislative assembly.

Approved February 21, 1871.

DUTY OF POLICE TO ASSIST HEALTH OFFICER, WHEN REQUIRED.

[R. S. D. C., Sec. 380.]

The board of health, or proper health officer, of the District shall have power to call upon any of the police force, to a number not exceeding six, to aid upon any necessary emergency in enforcing the powers and duties conferred upon their office by law; and it shall be the duty of any such number of police so called upon to obey such call, but such service shall not continue longer than twenty-four hours.

Extract from An Act providing a permanent form of government for the District of Columbia.

[2 Sup. R. S., 179.]

That in lieu of the board of health now authorized by law, the Commissioners of the District of Columbia shall appoint a physician as health officer, whose duty it shall be, under the direction of the said Commissioners, to execute and enforce all laws and regulations relating to the public health and vital statistics, and to perform all such duties as may be assigned to him by said Commissioners; and the board of health now existing shall, from the date of the appointment of said health officer, be abolished.

Approved June 11, 1878.

AN ACT to regulate the practice of pharmacy in the District of Columbia.

[1 Sup. R. S., 355.]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That from and after the passage of this act, it shall be unlawful for any person, not a registered pharmacist within the meaning of this

act, to conduct any pharmacy or store for the purpose of retailing, compounding, or dispensing medicines or poisons, for medical use, in the District of Columbia, except as hereinafter provided.

SEC. 2. That it shall be unlawful for the proprietor of any store or pharmacy to allow any person, except a registered pharmacist, to compound or dispense the prescriptions of physicians, or to retail or dispense poisons for medical use, except as an aid to, and under the immediate supervision of, a registered pharmacist. Any person violating the provisions of this section shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be liable to a fine of not less than twenty-five dollars nor more than one hundred dollars for each and every such offense.

SEC. 3. That immediately after the passage of this act, and biennially thereafter, or as often as necessary, the Commissioners of the District of Columbia shall appoint three pharmacists and two physicians, all of whom shall have been residents of the District of Columbia for five years and of at least five years' practical experience in their respective professions, who shall be known and styled as Commissioners of Pharmacy for the District of Columbia, who shall serve without compensation, and who shall hold office for two years, and until their successors are appointed and qualified. Said commissioners shall, within thirty days after the notification of their appointment, each take and subscribe to an oath to impartially and faithfully discharge their duties as prescribed by this act. The position of any commissioner who shall fail to so qualify within the time named shall be vacant, and the vacancy or vacancies so occurring, or any vacancy or vacancies that may occur, shall be filled by the Commissioners of the District of Columbia.

SEC. 4. That the commissioners of pharmacy shall keep a book of registration open at some convenient place within the city of Washington, of which due notice shall be given through the public press, and shall record therein the name and place of business of every person registered under this act. It shall be the duty of said commissioners of pharmacy to register, without examination, as registered pharmacists, all pharmacists and druggists who are engaged in business in the District of Columbia at the passage of this act as owners or principals of stores of pharmacies for selling at retail, compounding, or dispensing drugs, medicines, or chemicals for medicinal use, or for compounding and dispensing physicians' prescriptions, and all assistant pharmacists, twenty-one years of age, engaged in said stores or pharmacies in the District of Columbia at the passage of this act, and who have been engaged as such in some store or pharmacy where physicians' prescriptions were compounded and dispensed for not less than five years prior to the passage of this act: *Provided, however*, That in case of failure or neglect on the part of any such person or persons to present themselves for registration within sixty days after said public notice, they shall undergo an examination such as is provided for in section five of this act.

SEC. 5. That the said commissioners of pharmacy shall, upon application and at such time and place as they may determine, examine each and every person who shall desire to conduct the business of selling at retail, compounding, or dispensing drugs, medicines, or chemicals for medicinal use, or compounding and dispensing physicians' prescriptions within the District of Columbia as pharmacists; and if a majority of said commissioners shall be satisfied that said person is competent and fully qualified to conduct said business of compounding or dispensing drugs, medicines, or chemicals for medicinal use, or to compound and dispense physicians' prescriptions, they shall enter the name of such person as a registered pharmacist in the book provided for in section four of this act.

SEC. 6. That no person shall be entitled to an examination by said commissioners of pharmacy for registration as pharmacist unless he present satisfactory evidence of being twenty-one years of age, and having served not less than four years in a store or pharmacy where physicians' prescriptions were compounded and dispensed, or is a graduate of some respectable medical college or university.

SEC. 7. That all graduates in pharmacy having a diploma from an incorporated college or school of pharmacy that requires a practical experience in pharmacy of not less than four years before granting a diploma shall be entitled to have their names registered as pharmacists by said commissioners of pharmacy.

SEC. 8. That the commissioners of pharmacy shall be entitled to demand and receive from each person whom they register as pharmacist, without examination, the sum of three dollars, and from each person whom they examine the sum of ten dollars. And in case the examination of said person should prove defective and unsatisfactory, and his name not be registered, he shall be permitted to present himself for reexamination within any period not exceeding twelve months next thereafter, and no charge shall be made for such reexamination. The money received under the provisions of this section shall be applied to payment of such expenses as the commissioners may incur in executing the provisions of this act.

SEC. 9. Every registered pharmacist shall be held responsible for the quality of all drugs, chemicals, and medicines he may sell or dispense, with the exception of those sold in the original packages of the manufacturer, and also those known as "patent medicines;" and should he knowingly, intentionally, and fraudulently adulterate, or cause to be adulterated, such drugs, chemicals, or medical preparations, he shall be deemed guilty of a misdemeanor, and, upon conviction thereof, be liable to a penalty not exceeding one hundred dollars, and, in addition thereto, his name shall be stricken from the register.

SEC. 10. It shall be unlawful for any person, from and after the passage of this act, to retail any poisons enumerated in Schedules A and B, as follows, to wit:

SCHEDULE A.

Arsenic and its preparations, corrosive sublimate, white precipitate, red precipitate, biniodide of mercury, cyanide of potassium, hydrocyanic acid, strychnia and all other poisonous vegetable alkaloids, and their salts, essential oil of bitter almonds, opium and its preparations, except paregoric and other preparations of opium containing less than two grains to the ounce;

SCHEDULE B.

Aconite, belladonna, colchicum, conium, nux vomica, henbane, savin, ergot, cotton root, cantharides, creosote, digitalis, and their pharmaceutical preparations, croton oil, chloroform, chloral hydrate, sulphate of zinc, mineral acids, carbolic acid, and oxalic acid, without distinctly labeling the box, vessel, or paper in which the said poison is contained, and also the outside wrapper or cover, with the name of the article, the word "poison," and the name and place of business of the seller. Nor shall it be lawful for any person to sell or deliver any poisons enumerated in Schedules A and B, unless, upon due inquiry, it be found that the purchaser is aware of its poisonous character, and represents that it is to be used for a legitimate purpose. Nor shall it be lawful for any registered pharmacist to sell any poisons included in Schedule A without, before delivering the same to the purchaser, causing an entry to be made, in a book kept for that purpose, stating the date of sale, the name and address of the purchaser, the name and quality of the poison sold, the purpose for which it is represented by the purchaser to be required, and the name of the dispenser; such book to be always open for inspection by the proper authorities, and to be preserved for reference for at least five years. The provisions of this section shall not apply to the dispensing of poisons, in not unusual quantities or doses, upon the prescriptions of practitioners of medicine. Nor shall it be lawful for any licensed or registered druggist or pharmacist in the District of Columbia to retail, or sell, or give away any alcoholic liquors or compounds, as a beverage, to be drunk or consumed upon the premises. And any violation of the provisions of this section shall make the owner or principal of said store or pharmacy liable to a fine of not less than twenty-five and not more than one hundred dollars, to be collected in the usual manner.

SEC. 11. Any itinerant vender of any drug, nostrum, ointment, or appliance of any kind, intended for the treatment of diseases or injury, or who shall, by writing, or printing, or any other method, publicly profess to care or treat diseases, injury, or deformity, by any drug, nostrum, manipulation, or other expedient, shall pay a license of two hundred dollars per annum into the treasury of the District of Columbia, to be collected in the usual way.

SEC. 12. That any person who shall procure or attempt to procure registration for himself or for another under this act, by making or causing to be made any false representation, shall be deemed guilty of a misdemeanor, and shall, upon conviction thereof, be liable to a penalty of not less than twenty-five nor more than one hundred dollars, and the name of the person so fraudulently registered shall be stricken from the register. Any person, not a registered pharmacist as provided for in this act, who shall conduct a store, pharmacy, or place for retailing, compounding, or dispensing drugs, medicines, or chemicals, for medicinal use, or for compounding or dispensing physicians' prescriptions, shall be deemed guilty of a misdemeanor, and, upon conviction thereof, shall be liable to a penalty of not less than fifty dollars.

SEC. 13. That all fines and penalties under this act shall be collected in the same manner that other fines and penalties are collected in the District of Columbia; and it shall be the duty of the United States district attorney for the District of Columbia to prosecute all violations of this act.

SEC. 14. That all acts and parts of acts inconsistent with this act be, and the same are hereby, repealed.

Approved June 15, 1878.

AN ACT to create a revenue in the District of Columbia by levying a tax upon all dogs therein, to make such dogs personal property, and for other purposes.

[1 Sup. R. S., 374.]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there shall be levied a tax of two dollars each per annum upon all dogs owned or kept in the District of Columbia; said tax to be collected as other taxes in said District are or may be collected.

SEC. 2. It shall be the duty of the collector of taxes, upon receipt of said tax, to give to the person paying the same, for each dog so paid for, a suitable metallic tag, stamped with the year, showing that said tax has been duly paid; and he shall keep a record of all such payments, with the date thereof, and the name, color, and sex of such dog, and the name of the person claiming any dog so paid for; and a copy of such record, certified under the hand and official seal of the said collector, which shall be given to any person demanding the same, upon payment of twenty-five cents therefor, shall be prima facie evidence of such payment in any court in the District of Columbia.

SEC. 3. The poundmaster of the District of Columbia shall, during the entire year, seize all dogs found running at large without the tax tag, issued by the collector aforesaid, attached, and shall impound the same; and if, within forty-eight hours, the same are not redeemed, by the owners thereof. by the payment of two dollars, they shall be sold or destroyed, as the poundmaster may deem advisable; and any sale made by virtue hereof shall be deemed valid to all intents and purposes in all the courts of the District of Columbia.

SEC. 4. Any dog wearing the tax tag hereinbefore provided for shall be permitted to run at large in the District of Columbia. and shall be regarded as personal property in all the courts of said District; and any person injuring or destroying the same shall be liable to a civil action for damages, which, upon proof of said injuring or killing may be awarded in a sum equal to the value usually put upon such property by persons buying and selling the same, subject to such modification as the particular circumstances of the case may make proper.

SEC. 5. Any person owning any dog so recorded in the collector's office shall be liable in a civil action for any damage done by said dog to the full amount of the injury inflicted.

SEC. 6. It shall be the duty of any person owning or possessing a dog to place, or cause to be placed and kept, around the neck of such dog, a collar, on which shall be marked and engraved, in legible and durable characters, the name of the owner or possessor, and the letters "D. C.", and to which collar must be attached the insignia or tax tag furnished by the District tax collector, in accordance with the first and second sections of this law, under the penalty of not less than five nor more than ten dollars; and if any person shall put, or cause to be put, a collar, with the insignia or tax tag, around the neck of any dog owned or possessed by any person or persons residing in the District, without having obtained a license for keeping such animal, he, she, or they shall forfeit and pay the sum of not less than five nor more than ten dollars for each and every offense.

SEC. 7. Whenever it shall be made to appear to the Commissioners that there are good reasons for believing that any dog or dogs within the District are mad, it shall be the duty of the Commissioners to issue a proclamation requiring that all dogs shall, for a period to be defined in the proclamation, wear good, substantial muzzles securely put on, so as to prevent them from biting or snapping; and any dog going at large during the period defined by the Commissioners without such a muzzle shall be taken by the poundmaster and impounded, subject to the provisions of section three.

SEC. 8. Any person who shall remove, or cause to be removed, the collar and insigna or tax tag from the neck of any dog, or entice any properly licensed dog into any inclosure for the purpose of taking off its collar or insignia, or shall for such purpose decoy or entice any animal out of the inclosure or house of its owner or possessor, or shall seize or molest any dog while held or led by any person, or shall bring any dog into the District for the purpose of taking up and killing the same, shall forfeit and pay a sum of not more than twenty dollars.

SEC. 9. If any owner or possessor of a fierce or dangerous dog permit the same to go at large in the District of Columbia, to the danger or annoyance of the inhabitants, he shall forfeit and pay, for the first offense, ten dollars; for the second, a sum not exceeding twenty dollars; and upon a third conviction for the same offense, the Commissioners shall immediately cause the dog, upon account of which the conviction takes place, to be slain and buried.

SEC. 10. That all acts or parts of acts now in force in the District of Columbia inconsistent with the provisions of this act be, and the same are hereby, repealed.

Approved June 19, 1878.

AN ACT authorizing the Commissioners of the District of Columbia to extend the area for the taking up and impounding of domestic animals in the District of Columbia.

[1 Sup. R. S., 495.]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Commissioners of the District of Columbia be, and are hereby, authorized to prescribe rules for taking up and impounding of domestic animals found running at large in the District of Columbia.

Approved June 27, 1879.

JOINT RESOLUTION legalizing the health ordinances and regulations for the District of Columbia.

[1 Sup. R. S., 574.]

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the ordinances of the late board of health of the District of Columbia, as revised, amended, and adopted November nineteenth, eighteen hundred and seventy-five, entitled "An ordinance to revise, consolidate, and amend the ordinances of the board of health, to declare what shall be deemed nuisances injurious to health and to provide for the removal thereof," as printed in the report of said late board of health made to the first session of the Forty-fourth Congress, being Executive Document number one, part eight, be, and the same are hereby, legalized; and the respective penalties therein prescribed for violations thereof may be imposed and enforced for the respective offenses therein described, excepting the sections of said ordinance following, namely: Sections seven, nine, and fourteen, which said sections are not hereby legalized.

SEC. 2. That the ordinances, rules, and regulations of said late board of health contained in the report mentioned in the preceding section, and printed in the said executive document therein mentioned, namely:

First. "An ordinance to amend an ordinance to prevent domestic animals from running at large within the cities of Washington and Georgetown, passed by the board of health May nineteenth, eighteen hundred and seventy-one;"

Second. "An ordinance to prevent the sale of unwholesome food in the cities of Washington and Georgetown;"

Third. "An ordinance to provide for the inspection of streets, food, live stock, fish and other marine products, in the cities of Washington and Georgetown, and to define the duties of inspectors and other officers of the board of health;"

Fourth. "An ordinance to amend section ten of the code so as to read;"

Fifth. "An ordinance to amend an ordinance passed May thirteenth, eighteen hundred and seventy-three, to read as follows;"

Sixth. "An ordinance to prevent committing or creating nuisances in or about public urinals located within the cities of Washington and Georgetown;"

Seventh.[1] "Rules and regulations in regard to smallpox;"

Eighth. "Regulations to secure a full and correct record of vital statistics, including the registration of marriages, births, and deaths, the interment, disinterment, and removal of the dead in the District of Columbia," be, and the same are hereby, legalized and made valid; and the penalties therein provided respectively for violations thereof, may be imposed and enforced for the violations of the same respectively, as provided by section twenty-seven of the ordinances passed November nineteenth, eighteen hundred and seventy-five.

Approved April 24, 1880.

ORDINANCES AS LEGALIZED BY FOREGOING RESOLUTION.

AN ORDINANCE to revise, consolidate, and amend the ordinances of the board of health, to declare what shall be deemed nuisances injurious to health, and to provide for the removal thereof.

Be it ordained and enacted by the board of health of the District of Columbia, That filth, the contents of cesspools, offal, garbage, foul water, dye water, refuse from manufactories, ordure, urine, stable manure, decayed animal or vegetable matter, or other offensive substance detrimental to health, thrown, placed, or allowed to remain, in or upon any street, avenue, alley, sidewalk, gutter, public reservation, or open lot, in the cities of Washington or Georgetown, or in the

[1] See an act to prevent the spread of contagious diseases in the District of Columbia, approved March 3, 1897.

e densely populated suburbs of said cities, are hereby declared nuisances
rious to health; and any person who shall commit, create, or maintain the
esaid nuisances, or either of them, shall, upon conviction, be fined not less
1 five nor more than twenty-five dollars for every such offense.

EC. 2. That the carrying and transporting of bones, hides, fish, garbage, offal,
ther animal or vegetable substances, in decomposing and offensive condition,
ny other than covered and inclosed vehicles, through any street, avenue, alley
ublic place, within the cities of Washington or Georgetown, or the more
ely populated suburbs of said cities, is hereby declared a nuisance injurious
ealth; and any person who shall cause, commit, create or maintain such
ance shall, upon conviction, be fined not less than two nor more than twenty-
dollars for every such offense.

EC. 3. That manure accumulated in great quantities: manure, offal, or garbage
d or deposited within 300 feet of any place of worship, or of any dwelling, or
aded along the line of any railroad, or in any street or public way; cars or flats
led with manure, or other offensive matter, remaining or standing on any rail-
l, street, or highway in the cities of Washington or Georgetown, or the more
ely populated suburbs of said cities, are hereby declared nuisances injurious
ealth; and any person who shall pile or deposit manure, offal, or garbage, or
offensive or nauseous substance within 300 feet of any inhabited dwelling within
limits of said cities or their said suburbs; and any person who shall unload, dis-
rge, or put upon or along the line of any railroad, street or highway or public
e, within said cities or their said suburbs, any manure, garbage, offal, or other
nsive or nauseous substance, within 300 feet of any inhabited dwelling, or who
ll cause or allow cars or flats loaded with, or having in or upon them any such
stance to remain or stand in or along any railroad, street or highway, within
limits of said cities or their suburbs, within 300 feet of any inhabited dwelling,
who shall fail, after notice duly served by this board, to remove the same shall,
n conviction thereof, be fined not less than five nor more than twenty-five dol-
for every such offense.

EC. 4. That the filling, leveling, or raising the surface of any ground or lot within
cities of Washington or Georgetown, or the more densely populated suburbs
aid cities, with animal or vegetable substances, filth gathered in cleaning yards
treets, or waste material from mills or factories, or the removal of the surface of
ground or lot within said cities or their said suburbs, filled with such offensive
ter or substance, in such manner as to cause noisome odors or noxious gases
rise, are hereby declared nuisances injurious to health; and any person who
ll cause, commit, create, or maintain such nuisance shall, upon conviction, be
d not less than five nor more than twenty dollars for every such offense.

EC. 5. That throwing or placing any defiling or poisonous substance, decayed
nal or vegetable matter or filth into, or causing or allowing the same to pass
nter into, any spring, well, or river water, used by the public for drinking or
ing purposes, or into the water of any public reservoir or water pipe within
District of Columbia, whereby such water is rendered impure and unwhole-
e, are hereby declared nuisances injurious to health; and any person who shall
mit or create such nuisance shall, upon conviction, be fined not less than five
more than fifty dollars for every such offense.

EC. 6. That any wells, springs, or waters used for drinking or cooking purposes,
ch are impure and unwholesome, or which have been rendered impure and
holesome by reason of any defiling or poisonous substance, are hereby declared
sances injurious to health; and any person who shall maintain or continue such
sance, after due notice from this board to abate the same, shall, upon convic-
n, be fined not less than ten nor more than fifty dollars for every such offense.

EC. 8. That ailantus trees, the flowers of which produce offensive and noxious
rs, in bloom, in the cities of Washington or Georgetown, or the more densely
ulated suburbs of said cities, are hereby declared nuisances injurious to health;
any person maintaining such nuisance, who shall fail, after due notice from
board, to abate the same, shall, upon conviction, be fined not less than five nor
re than ten dollars for every such offense.

EC. 10.[1] That drainpipes, soil pipes, passages into sewers, or connections between
sewer and any ground or building, not of adequate and sufficient size to allow
free and entire passage of all the material that enters the same, or not provided
h good and sufficient sewer traps, so as to prevent the escape of noisome odors
noxious gases therefrom, are hereby declared nuisances injurious to health;
any person creating or maintaining either of said nuisances who shall fail,
r due notice from this board, to abate the same, shall, upon conviction, be fined
less than five nor more than twenty-five dollars for every such offense.

[1] See section 10 as amended, page 95.

SEC. 11. That all water-closets and privies connected with any house, building, or premises within the District of Columbia, in or upon which people live, or where they congregate or assemble, or any kind of business is done, kept in a filthy and offensive condition, or from which noisome odors and noxious gases arise, and all water-closets located within and being a part of any such house or building not provided with proper sewer traps so as to prevent the return and escape of noxious gases and offensive odors from any public or private sewer connected therewith, are hereby declared nuisances injurious to health; and any person creating, keeping, or maintaining such nuisance, shall, upon conviction, be fined not less than five nor more than twenty-five dollars for every such offense.

SEC. 12. That any privy within the cities of Washington or Georgetown, or the more densely populated suburbs of said cities, including Uniontown or Anacostia, and Mount Pleasant, in the District of Columbia, constructed of other material than brick, cement, or wood, or which is not provided with a sufficient box, bucket, or vessel for the reception of filth, and the inside of which is not at least five feet distant from the line of any adjoining lot, and at least two (2) feet distant from any street, lane, alley, camp, square, or public place, or public or private passageway: and any privy so constructed that it can not be conveniently approached and cleaned, or in such manner that each and every vault, box, bucket, or vessel thereof is not made tight and close, so that the contents thereof can not escape therefrom, except as may be permitted by means of a passageway or conduit under ground, for the purpose of carrying away the contents of such vault, box, or vessel into any common sewer or drain, is hereby declared a nuisance injurious to health; and any person who shall create, maintain, or continue such nuisance, and shall fail, after due notice from this board, to abate or remedy the same, shall, upon conviction, be fined not less than five nor more than twenty dollars for every such offense.

SEC. 13. That fœcal matter, not thoroughly deodorized and disinfected, remaining in privies in the District of Columbia, is hereby declared a nuisance injurious to health; and the board of health shall, upon the receipt of complaint in writing, cause any privy to be inspected, and, if necessary, cleaned by the persons authorized for said purpose; and any person owning or occupying premises on which any privy is situated, who shall refuse to permit the same to be inspected and cleaned at the times designated by said board, or whenever necessary, shall, upon conviction, be fined not less than five dollars for every such offense.

SEC. 15. That it shall be unlawful for any person to deposit the contents of any privy in any place other than such as may be approved by this board; and any person so offending shall, upon conviction, be fined not less than five nor more than fifty dollars for every such offense.

SEC. 16. That the system heretofore in use of removing night-soil, cleaning privies, privy boxes, vaults, sinks, and cesspools within the cities of Washington and Georgetown, and the more densely populated suburbs of the said cities, by buckets or other process agitating and exposing the contents thereof in the open air, and of transporting said contents in carts or other vehicles not air-tight, through the streets, avenues, alleys, and other public places within said cities, and their said suburbs, is hereby declared a nuisance injurious to health.

And that from and after the 15th day of October, A. D. 1873, no part of the contents (except substances not soluble in water) of any privy, privy box, vault, sink, or cesspool within said cities or their said suburbs shall be removed therefrom, nor shall the same be transported through any of the streets, avenues, alleys, or other public places of said cities or of their said suburbs, except as the same shall be removed and transported by means of some air-tight apparatus, pneumatic or other process, so as to prevent the said contents from being agitated or exposed in the open air during said process of removal or transportation; and any person violating the provisions of this section shall, upon conviction thereof, be fined not less than ten nor more than fifty dollars for every such offense.

SEC. 17. That the keeping, herding, and feeding of hogs, in pens or otherwise, within the cities of Washington or Georgetown, or the more densely populated suburbs of said cities, is hereby declared a nuisance injurious to health; and any person creating or maintaining such nuisance, who shall fail, after due notice from this board, to abate the same, shall, upon conviction, be fined not less than five nor more than twenty-five dollars, for every such offense.

SEC. 18. That filthy and unwholesome stables, sheds, pens, or places where cows, horses, mules, or other animals are kept, within the cities of Washington or Georgetown, or the more densely populated suburbs of said cities, are hereby declared nuisances injurious to health; and any person creating or maintaining such nuisance, who shall fail, after due notice from this board, to abate the same, shall, upon conviction, be fined not less than five nor more than twenty-five dollars for every such offense.

ec. 19. That any animal affected by glanders or other contagious or pestilential ase, kept or remaining in any stable, shed, pen, or place within the cities of shington or Georgetown or the more densely populated suburbs of said cities, ereby declared a nuisance injurious to health; and any person keeping or ntaining such nuisance, who shall fail, after due notice from this board, to e the same, shall, upon conviction, be fined not less than five nor more than nty-five dollars for every such offense.

ec. 20. That all establishments or places of business for tanning, skinning, ring, or dressing hides or leather within the District of Columbia, in a filthy lition, or from which noisome odors and noxious gases arise, are hereby ared nuisances injurious to health; and any person who shall erect, create, ntain, or continue such nuisance, and who shall fail, after due notice from this d, to abate the same shall, upon conviction, be fined not less than ten nor more n fifty dollars for every such offense.

ec. 21. That the boiling of offal, swill, bones, fat, tallow, or lard; the crushing, ding or burning of bones or shells; cleansing guts; making glue from any l animal or part thereof; making or boiling varnish or oil; making lampblack, entine, or tar; distilling ardent, alcoholic, or fermented spirits; storing or ing scraps, fat, grease, or other offensive animal matter; rendering or trying dead, undressed, and unslaughtered animals, or any other business or trade, reby noisome stenches and odors and noxious gases arise or are generated, in the cities of Washington or Georgetown, or the more densely populated rbs of said cities, are hereby declared nuisances injurious to health; and any on who shall cause, erect, create, maintain, or continue any such nuisance, and shall fail, after due notice from this board, to abate the same, shall, upon conion thereof, be fined not less than ten nor more than one hundred dollars for y such offense.

ec. 22. That unclean and filthy slaughterhouses, rooms, buildings, or places re sheep, hogs, cattle, or other animals are slaughtered, within the District of mbia, are hereby declared nuisances injurious to health; and any person cre-g, keeping, or maintaining such nuisance, who shall fail, after due notice from board, to abate the same, shall, upon conviction, be fined not less than ten nor e than fifty dollars for every such offense.

ec. 23. That the crushing or breaking of stone within the cities of Washington leorgetown, or the more densely populated suburbs of said cities, by machines therwise, in such manner as to create offensive and deleterious dust, is hereby ared a nuisance injurious to health; and any person creating or maintaining nuisance, who shall fail, after due notice from this board, to remove or abate same, shall, upon conviction, be fined not less than ten nor more than fifty ars for every such offense.

ec. 24. That undressed dead animals being or lying in any part of the cities of shington or Georgetown, or the more densely populated suburbs of said cities, Any of the horse, mule, or jack kinds, or any cow, goat, calf, sheep, dog, or ne, are hereby declared nuisances injurious to health; and any person owning, essing, or controlling any such dead animal, or any person who shall know-y place or allow such dead animal to remain in any part of said cities or their suburbs, and who shall fail to give notice thereof to the board of health within t hours after the death of said animal, shall, upon conviction, be fined not less n five nor more than ten dollars for every such offense.

ec. 25. That unmuzzled dogs going upon any street, avenue, or other public e, between the fifteenth day of May and the fifteenth day of October in any r, mad dogs, and dogs bitten by hydrophobic dogs, are hereby declared nuisances rious to health; and any person owning or keeping any dog who shall allow same to go unmuzzled upon any street, alley, or other public place, between fifteenth day of May and the fifteenth day of October in any year, or who shall se to kill, or to cause to be killed, any such dog owned or kept by him, which gone mad, or given symptoms of hydrophobia, or who shall omit to confine such animal exposed to such disease, or which has been bitten by a hydro-bic dog or animal, shall be deemed guilty of maintaining a nuisance, and, upon viction thereof, shall be fined not less than one nor more than twenty-five dol-; and any dog going at large between the fifteenth day of May and the fifteenth of October in any year, without a proper muzzle, shall be taken up by the ndmaster, who shall charge the owner of the same one dollar for its redemption; every such dog not redeemed within twenty-four hours after having been n up as aforesaid shall be liable to be shot by said poundmaster.

ec. 26. That it shall be the duty of the health officer appointed by this board, n receiving information or obtaining knowledge of the existence of any thing hings herein declared to be nuisances, or any thing or things which may here-r be declared to be nuisances by any ordinance or resolution enacted or adopted

by this board, to notify the person or persons committing, creating, keeping, or maintaining the same, to remove, or cause to be removed, the same within twenty-four hours, or such other reasonable time as may be determined by this board, after such notice be duly given; and if the same be not removed by such person or persons within the time prescribed in said notice, it shall be the duty of the health officer aforesaid to remove, or cause to be removed, such nuisance or nuisances, and all costs and expenses of such removal shall be paid by the persons committing, creating, keeping, or maintaining such nuisance or nuisances; and if the said costs and expenses thus accruing shall not be paid within ten days after such removal by said health officer, the same shall be collected from the person or persons committing, creating, keeping, or maintaining such nuisances by suit at law.

SEC. 27. That all fines and penalties imposed by any section of this ordinance shall be collected by prosecution in the police or other proper court of the District of Columbia, by information filed in said court, at the instance of the board of health.

And whenever the nuisance complained of is set forth as continuing and existing, and is shown to be such to the satisfaction of the court before whom the person creating or maintaining said nuisance is tried, the party so offending shall, upon conviction thereof, in addition to the fine imposed, be ordered by said court to abate or remove said nuisance.

SEC. 28. That all ordinances, or parts of ordinances, of this board inconsistent or in conflict with the foregoing provisions of this ordinance are hereby repealed.

November 19, 1875.

AN ORDINANCE to amend "An ordinance to prevent domestic animals from running at large within the cities of Washington and Georgetown," passed by the board of health May 19, 1871.

Be it ordained and enacted by the board of health of the District of Columbia, That domestic animals shall not be permitted to run at large within the limits of the cities of Washington and Georgetown, and all domestic animals found running at large within the limits of said cities shall be taken up and impounded.

SEC. 2. That every animal taken up and impounded as aforesaid, within forty-eight hours after such impounding, if not claimed, and the charges for taking up, impounding, and keeping the same paid, shall be sold at public auction; and the poundmaster appointed by this board, as hereinafter provided, is hereby authorized to act as auctioneer at said sale.

SEC. 3. That the proceeds of such sale shall be paid over to the treasurer of the board, who shall give duplicate receipts therefor, one copy of the same to be retained by the officer selling such animals, and the other copy to be by said officer filed with the secretary of the board; and it shall be the duty of said treasurer to keep an accurate account of all moneys received by him under the provisions of this ordinance, and to report the same from time to time as required by the board.

SEC. 4. That all moneys received by said treasurer from the sale of animals, as aforesaid, shall, if demanded by the owner of such animals, at any time within one year from the sale thereof, upon satisfactory proof that such claimant was the owner of such animal sold as aforesaid, after deduction of charges and expenses, as hereinafter specified, of taking up, and impounding, and keeping such animals, be paid to said claimant; otherwise said moneys shall be used by this board for sanitary purposes within and for the benefit of the District of Columbia.

SEC. 5. That the charges for taking up and impounding domestic animals found running at large within the cities of Washington and Georgetown shall be as follows, to wit: For each horse, mule, bull, steer, cow, calf, heifer, two dollars; and for each sheep, goat, hog, one dollar; and for each goose, fifty cents; and, in addition to said several sums, the charges for keeping said animals shall be the reasonable and necessary expenses thereof, to be paid by the owner.

SEC. 6. That no person shall break open, or in any manner, directly or indirectly, aid or assist in breaking open, any pound established by the board of health, or take or let any animal out of such pound, without the consent of the officer keeping the same; nor shall any person or persons hinder, delay, or obstruct any person or persons engaged in driving or carrying to such pound any animal or animals liable to be taken up or impounded under the provisions of this ordinance; and any person violating the provisions of this section shall be punished, upon conviction thereof, by a fine of not less than five dollars nor more than twenty-five dollars for each and every such violation.

SEC. 7. That there shall be appointed by the board of health a poundmaster, whose duty it shall be to take up and impound all domestic animals found running at large within the cities of Washington and Georgetown, to keep safely and care-

fully all property pertaining to said pound, and all animals impounded therein; and to report from time to time, through the health officer, as required by this board, the condition of said pound, and what repairs, if any, are needed; and the number and description of the animals therein impounded, and what disposition has been made of the same; and to report all moneys received by him under the provisions of this ordinance. And it shall be the further duty of said poundmaster to pay over, daily, all moneys received as aforesaid to the health officer, taking receipt therefor, and said poundmaster shall give good and sufficient bonds for the proper discharge of his several duties as herein provided.

SEC. 8. That the poundmaster appointed by this board shall keep a register of all animals taken up by him, with an accurate description of the same, which shall at all times be open to the inspection of the public; and the said poundmaster is hereby forbidden to deliver any animal taken up and impounded to any person applying for the same, unless such person shall present good and sufficient evidence of his ownership or right to the possession of said animal.

And no sale of any animal or animals impounded as aforesaid shall be made until due public notice by advertisement in at least one newspaper of such sale shall have been given, together with a description of the animal or animals to be sold, as hereinbefore provided.

SEC. 9. That any ordinance or part of an ordinance heretofore passed by the board of health of the District of Columbia, inconsistent with the foregoing, be, and the same is hereby, repealed.

AN ORDINANCE to prevent the sale of unwholesome food in the cities of Washington and Georgetown.

Be it ordained and enacted by the board of health of the District of Columbia, That no person shall knowingly sell, or cause to be sold, within the cities of Washington or Georgetown, any impure, diseased, decayed, or unwholesome provisions, nor shall any person fraudulently adulterate, for the purpose of sale within said cities, any bread or other material intended to be used for food with any substance of a poisonous character, or any substance injurious to health; and any person violating the provisions of this section shall, upon conviction thereof, be punished by a fine of not less than ten nor more than fifty dollars for each and every such offense.

SEC. 2. That no person shall offer for sale within the cities of Washington or Georgetown any liquor used for drink, whether malt, vinous, or ardent, or the milk of cows or goats, intended to be used for food or drink, which has been adulterated with any poisonous or deleterious ingredient; and any person violating the provisions of this section, shall, upon conviction, be punished by a fine of not less than ten nor more than fifty dollars for each and every such offense.

SEC. 3. That no person shall convey into the cities of Washington or Georgetown, and offer for sale in any part of said cities, any animal or part of animal that may be sickly, diseased, or unwholesome, or which may have died from disease or accident, or any fish or vegetables not fresh, sound, and fit for food; and any person violating the provisions of this section shall, upon conviction thereof, be punished by a fine of not less than five nor more than twenty-five dollars for each and every such offense.

SEC. 4. That no person shall slaughter any cattle for the purpose of sale as food within the cities of Washington and Georgetown when such cattle are in a feverish or diseased condition; and any person violating the provisions of this section shall, upon conviction thereof, be punished by a fine of not less than five nor more than twenty-five dollars for each and every such offense.

SEC. 5. That no person, whether owner, manager, keeper of, agent, bartender, or clerk, in any saloon, restaurant, boarding house, or eating house, located within the cities of Washington or Georgetown, shall offer for sale as food or drink anything poisonous or unwholesome; and any person violating the provisions of this section shall, upon conviction thereof, be punished by a fine of not less than five nor more than twenty-five dollars for each and every such offense.

SEC. 6. That no person owning, renting, leasing, or occupying any stall, room, or stand where meats or vegetables are sold for food, within the cities of Washington or Georgetown, shall fail to keep said stall, room, or stand in a cleanly condition; nor shall such person allow said meats or vegetables to become poisoned, or infected, or unfit for food by reason of uncleanly condition of such stall, room, or stand; and any person violating the provisions of this section shall, upon conviction, be punished by a fine of not less than ten nor more than twenty-five dollars for each and every such offense.

SEC. 7. That no person shall offer for sale, within the cities of Washington or Georgetown, any unwholesome, watered, or adulterated milk, or swill milk, or milk from cows kept up and fed on garbage, swill, or other deleterious substance; nor shall any person offer for sale within said cities any butter or cheese made from such unwholesome milk; and any person violating the provisions of this section shall, upon conviction, be punished by a fine of not less than five nor more than twenty dollars for each and every such offense.

SEC. 8. That on and after the passage of this ordinance it shall be unlawful for and person or persons to sell or expose for sale within the cities of Washington and Georgetown, any unsound, blown, or unwholesome meat, or other article of food, under a penalty of not less than five nor more than twenty-five dollars for each and every such offense.

AN ORDINANCE to provide for the inspection of streets, food, live stock, fish and other marine products in the cities of Washington and Georgetown, and to define the duties of inspectors and other officers of the board of health.

Be it ordained and enacted by the board of health of the District of Columbia, That there shall be appointed by the board of health a health officer and such inspectors as may be required, who shall be assigned to the several duties of inspection of streets, of food, of live stock, of fish and other marine products, or detailed for the performance of such other duties as may be necessary.

SEC. 2. That it shall be the duty of the health officer, as he may be directed by this board, to execute or cause to be executed, the ordinances, resolutions, and orders of the board, and generally, according to its instructions, to exercise a practical supervision in respect to inspectors, poundmasters, and the clerical force in his office; and said health officer shall devote his services to the aforesaid purposes as the board may direct.

SEC. 3. That it shall be the duty of each inspector of streets to visit every part of his district daily, and carefully inspect all streets, alleys, yards, and inclosures, horse and cow stables, privies, slaughterhouses, wharves, and every other place where offensive or deleterious matter may exist, and to report promptly to the health officer any and all nuisances injurious to health; and the inspectors of streets shall perform such other duties and special inspections as may be directed by the health officer.

SEC. 4. That it shall be the duty of each inspector of food to attend the market or markets within his inspection district every morning, at the time when sales commence, and carefully inspect all meats, fowl, game, and vegetables offered for sale, and condemn, seize, and cause to be removed such as may be diseased, or from any other cause rendered unfit for food. He shall also visit, as early as practicable each day, every green grocery or other place within his district, where articles of food are kept for sale, and perform his duty of inspection, condemnation, seizure, and removal as hereinbefore prescribed. He shall report his official proceedings daily to the health officer, and in the performance of his duties shall be under the direction of said officer; and the inspectors of food shall peform such other duties and special inspections as may be directed by the health officer.

SEC. 5. That it shall be the duty of the inspector of live stock to carefully inspect all cattle, hogs, sheep, or other animals intended to be killed and sold for consumption as food in the cities of Washington and Georgetown, and to condemn all such as may be diseased, or from any other cause rendered unfit for food; and it is hereby made the duty of said inspector to brand with the letter "C" all cattle, hogs, sheep, or other animals condemned as aforesaid, and said inspector shall report his official proceedings daily to the health officer.

SEC. 6. That it shall be the duty of the inspector of fish and other marine products to examine and inspect all fish, oysters, clams, lobsters, and other marine products, landing by boat, arriving by rail, or otherwise brought by any person or persons into the cities of Washington and Georgetown; and if, upon such inspection, said inspector shall find any of the said marine products to be in an unsound, diseased, or unwholesome condition, it shall be his duty to prohibit their sale; and the said inspector of fish is hereby authorized, empowered, and directed to condemn, seize, and remove any unsound, diseased, or unwholesome fish, oysters, clams, lobsters, crabs, or other marine products which may be offered for sale as food within the cities of Washington and Georgetown.

SEC. 7. That in the performance of the duties herein prescribed the inspector of fish shall be, and is hereby, authorized and empowered to board all boats, vessels, steamboats, and cars, and to stop all vehicles believed by him to contain fish or other marine products, for the purpose of enforcing the provisions of this ordinance, and said inspector shall report his official proceedings daily to the health officer.

SEC. 8. That upon any cattle, meat, birds, fowls, fish or other marine products, vegetables, or other articles of food being found by any inspector or other officer of the board of health in a condition which is, in his judgment, unwholesome, and unfit for use as human food, or in a condition or of a quality forbidden by the ordinances of this board, but with respect to the quality and condition of which articles of food said inspector or other officer may be in doubt, he shall forbid the sale thereof, and order that the same be set aside, and shall at once notify the health officer of such action; and if, upon inspection, the health officer shall concur in the judgment of the inspector or other officer aforesaid, said health officer shall prohibit the sale and order the removal of said articles, according to the regulations of the board of health; and if the health officer shall not concur in the judgment of the inspector or other officer aforesaid, the sale of said articles shall be allowed. But if, upon inspection, the health officer is in doubt as to whether said articles should be condemned or not, then the committee on food inspections of the board of health shall decide whether or not said articles shall be condemned and the sale thereof forbidden: *Provided*, That no article of food, in a decayed or offensive condition, shall be allowed to remain where found, but the same shall be caused to be removed forthwith by the inspector or officer aforesaid, according to the rules and regulations of the board of health.

SEC. 9. That any person who shall molest, hinder, or in any manner prevent said health officer or any inspector appointed by this board, from performing any duty imposed upon him or them by the provisions of this ordinance, shall be punished by fine of not less than twenty nor more than one hundred dollars for each and every such offense.

AN ORDINANCE to amend section 10 of the code so as to read:

SEC. 10. *And be it further ordained and enacted*, That drainpipes, soilpipes, or passages into sewers, which are of inadequate and insufficient size, or which are not provided with proper sewer traps, within the District of Columbia, are hereby declared nuisances, injurious to health; and any person or persons, whether owner or tenant (board, department or corporation officer), using or possessing any drainpipe, soilpipe, passage or connection between any sewer and any ground, building, or place of business, who shall fail to make such drainpipe, soilpipe, passage or connection of adequate or sufficient size to allow the free and entire passage of all that enters or should enter the same, and *provide them with proper sewer traps;* and who shall fail, after notice duly served upon him, to supply such pipes of adequate and sufficient size, *and provided with proper sewer traps*, shall be deemed guilty of keeping and maintaining a nuisance, and, upon conviction thereof, shall be punished by a fine of not less than five dollars nor more than ten dollars.

July 30, 1875.

AN ORDINANCE to amend ordinance passed May 13, 1873, to read as follows:

SEC. 1. That all water-closets and privies connected with any house, building, or premises within the District of Columbia, in and upon which people live, or where they do congregate or assemble, or any kind of business is done, kept in an uncleanly and foul condition, and from which offensive smells and noxious gases arise, and all water-closets located within and being a part of any such house or building not provided with proper sewer traps, so as to prevent the return and escape of noxious gases and offensive odors from any public or private sewer connected therewith, are hereby declared to be nuisances, injurious to health; and any person creating, keeping, and maintaining such nuisance, after due notice served upon him by this board to abate the same within twenty-four hours or within such reasonable time as may be determined by this board, shall, upon conviction thereof, be punished by a fine of not less than five dollars nor more than twenty-five dollars for each and every day such nuisance is allowed to remain unabated.

July 30, 1875.

AN ORDINANCE to prevent committing or creating nuisances in or about public urinal or urinals located within the cities of Washington and Georgetown.

Be it ordained and enacted by the board of health of the District of Columbia, That fœcal matter deposited in or about any public urinal or urinals located within the cities of Washington or Georgetown, defecating in or about said urinal

or urinals, or obstructing the same in any manner or by any means whatever, are hereby declared to be nuisances, injurious to health, and any person convicted of committing or creating either of said nuisances shall be fined not less than ten dollars nor more than fifty dollars for every such offense.

December 28, 1876.

REGULATIONS to secure a full and correct record of vital statistics, including the registration of marriages, births, and deaths, the interment, disinterment, and removal of the dead in the District of Columbia.

First. It is hereby ordered by the board of health of the District of Columbia, that there shall be elected or appointed from its members, as the board may direct, an officer named and known as the registrar of vital statistics of the District of Columbia, but who may be designated registrar, and who shall, under the direction of said board, keep a full and correct record of vital statistics, issue such permits as are hereinafter required, make and publish a weekly statement of births, marriages, and deaths in said District, and perform such other duties as are hereinafter provided.

Second. That it shall be the duty of every clergyman, magistrate, or other person who shall perform any marriage ceremony within the District of Columbia, to report each marriage ceremony solemnized by him to the registrar aforesaid, within forty-eight hours thereafter, giving the full name, age, color, occupation, birthplace (State or county), and legal residence of each person married, and the date of such marriage.

Third. That any physician, accoucheur, midwife, or other person in charge who shall attend, assist, or advise at the birth of any child within the District of Columbia, shall report to the registrar aforesaid, within six days thereafter, stating distinctly the date of birth, sex, and color of the child or children born, its or their physical condition, whether stillborn or not, the full name, nativity, and residence of the parents, and maiden name of the mother of such child or children.

Fourth. That whenever any person shall die within the District of Columbia it shall be the duty of the physician attending such person during his or her last sickness, or of the coroner of the District when the case comes under his official notice, to furnish and deliver to the undertaker, or other person superintending the burial of said deceased person, a certificate, duly signed, setting forth, as far as the same may be ascertained, the name, age, color, sex, nativity, (giving State or country), occupation, whether married or single, duration of residence in the District of Columbia, cause, date, and place of death, (giving street and number), and duration of last sickness of such deceased person. And it shall be the duty of the undertaker, or other person in charge of the burial of such deceased person, to state in said certificate the date and place of burial, and having signed the same, to forward it to the registrar aforesaid within twenty-four hours after such death: *Provided*, That in case of death from any infectious or contagious disease said certificate shall be so made and forwarded within eight hours thereafter.

Fifth. That no interment or disinterment of the dead body of any human being, or disposition thereof in any tomb, vault, or cemetery shall be made within the District of Columbia without a permit therefor, granted by the board of health of said District, nor otherwise than in accordance therewith. And no sexton or other person shall assist in or assent to, or allow any such interment or disinterment to be made until such permit has been given, as aforesaid; and it shall be the duty of every sexton or other person having charge of any burying ground, cemetery, tomb, or vault, as aforesaid, who shall receive any such permit, to preserve and return the same to the registrar aforesaid, before 6 o'clock p. m. of the Saturday following the day of burial; and no sexton, undertaker, or other person shall bury, or cause to be buried, the body of any deceased person within the District of Columbia, except in such grounds as are now known and used as burial grounds, or such as shall hereafter be by law designated and authorized to be used as such.

Sixth. That no dead body, or part of the dead body of any human being shall be in any manner carried or conveyed from, in, to, or through the District of Columbia by any person, or by means of any boat, vessel, car, stage, or other vehicle, or by public or private conveyance, without a permit therefor first granted by the board of health of said District; and when the remains of any deceased person are to be conveyed, transferred, or removed beyond the limits of the District of Columbia, it shall be the duty of the person, or agent or officer of the corporation having charge of the conveyance, transfer, or removal, to detach, sign, and return the coupon attached to said permit to the registrar of vital statistics of the board of health aforesaid, before 5 o'clock p. m. of the Saturday following the conveyance, transfer, or removal of said remains: *Provided*, That the same effect may be given by said board to a burial or transit permit issued by the proper authority of any

er place or jurisdiction, when the death of the person named in the permit shall e occurred within such place or jurisdiction.

leventh. That whenever a permit for burial is applied for, in case of death hout the attendance of a physician, or if it be impossible to obtain a physician's tificate, it shall be the duty of the health officer to investigate the cause and umstances of such death, to make and sign the certificate required by section f these regulations, and if not satisfied as to the cause and circumstances of h death, he shall so report to the board of health, who shall refer the case to the oner of the District for investigation and report, and said coroner is hereby uired to make such investigation and report.

ighth. That it shall be the duty of every physician, accoucheur, midwife,[1] under- er, sexton or superintendent of any cemetery, or other person having charge of same, practicing medicine or doing business within the District of Columbia, egister his or her name in a book or books to be provided for such purpose, at office of the board of health of said District, giving full name, residence, and ce of business, and in case of removal from one place to another in said District, make change in said register accordingly.

Ninth. That any person who shall violate, or aid and abet in violating, any of the visions of the foregoing regulations, shall, upon conviction thereof by competent icial authority, be punished by a fine of not less than twenty-five nor more than hundred dollars for each and every such offense.

enth. That all rules, regulations, and ordinances heretofore passed by this board onsistent with the provisions of these regulations be, and the same are hereby, ealed.

Eleventh. That these regulations shall take effect and be in force on and after first day of August, A. D. 1874.

DISTRICT OF COLUMBIA, BOARD OF HEALTH,
Washington, August 28, 1874.

First. It is hereby ordered that physicians required to register their names ler the eighth regulation of the board, to secure a full and correct record of vital tistics, do so upon a license received from some chartered medical society or n a diploma received from some medical school or institution.[1]

econd. That the expression "physical condition," as employed in the statute stofore enacted by the legislative assembly of the District, and incorporated in third regulation, be defined as follows: "*The general physical condition*," ther healthy or unhealthy. But in no case will the board require in the en- ement of this rule that sick-bed or confidential communications made to phy- ans be revealed in the report required by this third regulation.

hird. That on and after the fifteenth day of next month, by which time all sicians of the city may have registered according to the requirements of the rd, the regulation with regard to penalties be rigidly enforced; and that up to date the regulation with regard thereto, as far as any violations thereof have urred, and as far as this board is concerned, as prosecutors, the same be not orced.[1]

Extract from An Act for the establishment of the Bureau of Animal Industry.

[1 Sup. R. S., 2d Ed., 437.]

EC. 8. That whenever any contagious, infectious, or communicable disease cting domestic animals, and especially the disease known as pleuro-pneumonia, ll be brought into or shall break out in the District of Columbia, it shall be duty of the Commissioners of said District to take measures to suppress the ie promptly and to prevent the same from spreading; and for this purpose the l Commissioners are hereby empowered to order and require that any premises, m, or farms where such disease exists, or has existed, be put in quarantine; to er all or any animals coming into the District to be detained at any place or ces for the purpose of inspection and examination; to prescribe regulations for l to require the destruction of animals affected with contagious, infectious, or mmunicable disease, and for the proper disposition of their hides and carcasses; prescribe regulations for disinfection, and such other regulations as they may m necessary to prevent infection or contagion being communicated, and shall ort to the Commissioner of Agriculture whatever they may do in pursuance the provisions of this section.

pproved May 29, 1884.

[1] See An Act to regulate the practice of medicine, etc., approved June 3, 1896.

AN ACT to prevent the manufacture or sale of adulterated food or drugs in the District of Columbia.

[1 Sup. R. S., 2d Ed., 627].

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That no person within the District of Columbia shall mix, color, stain, or powder, or order or permit any other person to mix, color, stain, or powder any article of food or drugs with any ingredient or material so as to render the article injurious to health, or manufacture any article of food which shall be composed in whole or in part of diseased, decomposed, offensive, or unclean animal or vegetable substance with the intent that the same may be sold in the said District, and no person shall sell in the District of Columbia any such article so mixed, colored, stained, powdered or manufactured. Any person violating this section shall be guilty of a misdemeanor, and for each offense be fined not exceeding two hundred dollars for the first offense, and for each subsequent offense not exceeding three hundred dollars, or imprisonment not exceeding one year, or both, in the discretion of the court.

SEC. 2. That no person shall, within the District of Columbia, except for the purpose of compounding as hereinafter described, mix, color, stain, or powder, or order or permit any other person to mix, color, stain, or powder, any drug with any ingredient or material so as to affect injuriously the quality or potency of such drug, with intent that the same may be sold in the said District of Columbia, and no person shall sell any such drug so mixed, colored, stained, or powdered under the same penalty in each case respectively as in the preceding section for a first and subsequent offense.

SEC. 3. That no person shall be liable to be convicted under either of the two last foregoing sections of this act in respect of the sale of any article of food, or of any drug, if he shows to the satisfaction of the court before whom he is charged that he did not know of the article of food or drug sold by him being so mixed, colored, stained, or powdered, as in either of those sections mentioned, and that he could not, with reasonable diligence, have obtained that knowledge.

SEC. 4. That no person shall sell in the District of Columbia any article of food or drug which is not of the nature, substance, and quality of the article demanded by any purchaser, and any person violating this section shall be guilty of a misdemeanor, and for the first offense be fined not exceeding fifty dollars, and for each subsequent offense not exceeding one hundred dollars, or imprisonment not exceeding six months, or both, in the discretion of the court: *Provided*, That an offense shall not be deemed to be committed under this section in the following cases, that is to say:

First. Where any matter or ingredient not injurious to health has been added to the food or drug because the same is required for the production or preparation thereof as an article of commerce, in a state fit for carriage or consumption, and not fraudulently to increase the bulk, weight, or measure of the food or drug, or conceal the inferior quality thereof.

Second. Where the drug or food is a proprietary medicine.

Third. Where the food or drug is compounded as authorized by this act.

Fourth. Where the food or drug is unavoidably mixed with some extraneous matter in the process of collection or preparation.

SEC. 5. That no person shall sell in the District of Columbia any compound article of food or compounded drug which is not composed of ingredients in accordance with the demand of the purchaser. Any person violating this section shall be guilty of a misdemeanor and fined not exceeding fifty dollars: *Provided*, That no person shall be guilty of any such offense as aforesaid in respect of the sale of an article of food or a drug mixed with any matter or ingredient not injurious to health, and not intended, fraudulently, to increase its bulk, weight, or measure, or conceal its inferior quality, if at the time of delivering such article or drug he shall supply to the person receiving the same a notice, by a label, distinctly and legibly written or printed on or with the article or drug, to the effect that the same is mixed.

SEC. 6. That no person shall, in the District of Columbia, with the intent that the same may be sold in its altered state without notice, subtract from any article of food any part of it so as to affect injuriously its quality, substance, or nature, and no person shall sell any article so altered without making disclosure of the alteration, and any person violating the provisions of this section shall be guilty of a misdemeanor and fined not exceeding one hundred dollars.

SEC. 7. That in any prosecution under this act, where the fact of an article having been sold in a mixed state has been proved, if the defendant shall desire to

ın proviso contained in this act, it shall be incumbent upon him to prove
e.
. That if the defendant in any prosecution under this act prove to the
ion of the court that he had purchased the article in question as the same
e, substance, and quality as that demanded of him by the purchaser, and
vritten warranty to that effect; that he had no reason to believe at the
en he sold it that the article was otherwise; and that he sold it in the
ate as when he purchased it, he shall be discharged from the prosecution.
. That any person who shall forge, or shall alter knowing it to be forged,
ificate or any writing purporting to contain a warranty, as provided in
ight of this act, shall be guilty of a misdemeanor and be punishable, on
on, by imprisonment for a term not exceeding one year with hard labor.
0. That every person who shall willfully apply to any article of food or
certificate or warranty given in relation to any other article or drug, or
ll give a false warranty in writing to any purchaser in respect of an article
or a drug sold by him as principal or agent, or who shall willfully give a
th any article sold by him which shall falsely describe the article sold
guilty of a misdemeanor, and on conviction be fined not to exceed one
l dollars.
1. That the analysis provided for in this act shall be under the control of
missioner of Internal Revenue under such rules and regulations as may
ribed by the Secretary of the Treasury.
2. That any purchaser of an article of food or of a drug in the said Dis-
ll be entitled to have such article analyzed by such analyst, and to receive
n a certificate of the result of his analysis. And any health officer, inspector
nces, or any food inspector may procure any sample of food or drug, and if
cts the same to have been sold to him contrary to any provision of this act
submit the same to the Commissioner of Internal Revenue to be analyzed
ll with all convenient speed cause such analysis to be made and give a cer-
to such officer, wherein he shall specify the result of the analysis.
3. That if any officer mentioned in section twelve of this act shall apply
ase any article of food or any drug exposed to sale or on sale by retail on
mises or in any shop or store, and shall tender the price for the quantity
e shall require for the purpose of analysis, not being more than shall be
bly requisite, and the person exposing the same for sale shall refuse to sell
e to such officer, such person shall be guilty of a misdemeanor and fined
offense not exceeding fifty dollars.
4. That the term "food," as used in this act, shall include every article
food or drink by man other than drugs or water. The term "drug," as
this act, shall include all medicines for internal or external use.
5. That nothing in this act shall be construed as modifying or repealing
risions of chapter eight hundred and forty of the acts of the first session of
ty-ninth Congress, entitled "An act defining butter; also imposing a tax
d regulating the manufacture, sale, importation, and exportation of oleo-
ine," approved August sixth,[1] eighteen hundred and eighty-six.
6. That the Commissioner of Internal Revenue may, from time to time
certain articles or preparations to be exempt from the provisions of this
l it shall be the duty of the Commissioners of the District to prepare and
from time to time a list of the articles, mixtures, or compounds declared
empt from the provisions of this act, in accordance with this section.
oved October 12, 1888.

T to prevent the spread of scarlet fever and diphtheria in the District of Columbia.

[1 Sup. R. S., 885.]

enacted by the Senate and House of Representatives of the United States of a in Congress assembled, That from and after the passage of this act it shall uty of every registered practicing physician or other person prescribing for in the District of Columbia to make report to the health officer, on forms to ished by that officer, immediately after such practitioner becomes aware of tence of any case of scarlet fever or diphtheria in his charge; and in case rson shall fail to so report within twenty-four hours he shall be subject to a of not less than five nor more than fifty dollars, and in case of a second the penalty shall not be less than ten nor more than one hundred dollars. no physician shall be in charge of such patient the householder where such

[1] So in original. Act was approved August *second*, 1886.

case occurred, or person in charge thereof, the parent, guardian, nurse, or other person in attendance upon the sick person knowing the character of the disease shall make the report above mentioned, and in case of failure to report shall suffer the same penalties as provided for physicians in this act.

SEC. 2. That it shall be the duty of the health officer coöperating with the attending physician to cause a suitable placard, flag, or warning sign to be displayed from the front of the premises or apartment where any one case of scarlet fever or diphtheria is present. It shall be unlawful for any person to remove such placard, sign, or warning flag, when so placed, without permission of the health officer. And it shall be the duty of the said health officer, in conjunction with the attending physician, to cause the premises to be properly disinfected, and to issue the necessary instructions for the isolation of the patient.

SEC. 3. That no person shall visit or attend any public or private school, or place of public assemblage, or appear on the public streets or in the parks while affected with scarlet fever or diphtheria, and any adult person, parent, or guardian of a minor convicted of having knowingly violated the provisions of this act shall, upon conviction, forfeit and pay a sum not less than five nor more than fifty dollars; and it shall be the duty of physicians while in attendance upon cases of scarlet fever and diphtheria to exercise such reasonable precautions to prevent the spread of the said diseases as may be prescribed by the health officer of the District of Columbia in regulations.

SEC. 4. That no person who has convalesced from diphtheria or scarlet fever shall be allowed to attend any public or private school, seminary, or college until the attending physician shall have furnished a certificate that said patient has completely recovered, and that there is no danger of infection to other persons. All persons who shall, after convalescing from diphtheria or scarlet fever, visit schools, seminaries, or colleges, without providing themselves with such certificates, shall suffer the penalties provided for in section 1 of this act.

SEC. 5. That the provisions of this act shall apply to every ship, vessel, steamer, boat, or craft lying or being in the rivers, harbors, or other waters within the jurisdiction of said District, and to every tent, van, shed, hovel, barn, outhouse, cabin, or other like place, as if the same were an ordinary dwelling.

SEC. 6. That the word "regulations," as herein used, shall be held to mean also rules, orders, and amendments. The words "person in charge thereof" shall be held to mean the owner, his agent or factor; the tenant, his clerk or representative; the nurse, or any one or more persons who by reason of their position are charged with the management or care of the premises, or interested in the person afflicted. The words "practitioner of medicine," or "practitioner," shall be held to include all persons who undertake to treat persons afflicted, either gratuitously or for pay.

SEC. 7. That any person who shall knowingly make, sign, or deliver any false report or certificate herein provided for, upon conviction thereof in the police court of said District, shall be fined not less than five nor more than fifty dollars, and, in default of payment thereof, be committed to jail for not less than one nor more than twenty days.

SEC. 8. That the expenses necessarily incurred in the execution of the provisions of this act shall be borne from the general appropriation for the maintenance of the health department of the District of Columbia. And the jurisdiction of civil and criminal procedure in the enforcement of this act is hereby vested in the police court of the said District, with the same right of appeal as in other civil and criminal trials in said District.

Approved December 20, 1890.

JOINT RESOLUTION to regulate licenses to proprietors of theaters in the city of Washington, District of Columbia, and for other purposes.

[2 Sup. R. S., 71.]

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That all licenses issued by the Commissioners of the District of Columbia to proprietors of theaters or other public places of amusement in the city of Washington, District of Columbia, and now in force be and the same are hereby terminated, unless the persons holding such licenses shall within ten days after due notice comply with such regulations as may be prescribed for the public safety by the Commissioners of the District of Columbia.

SEC. 2. That the Commissioners of the District of Columbia are hereby authorized and empowered to make and enforce all such reasonable and usual police regulations in addition to those already made under the act of January twenty-sixth,

m hundred and eighty-seven, as they may deem necessary for the protec-
lives, limbs, health, comfort and quiet of all persons and the protection
roperty within the District of Columbia.
roved February 26, 1892.

T for the regulation of the practice of dentistry in the District of Columbia, and for the protection of the people from empiricism in relation thereto.

[2 Sup. R. S., 24.]

enacted by the Senate and House of Representatives of the United States of ca in Congress assembled, That it shall be unlawful for any person to practntistry in the District of Columbia unless such person shall register with alth officer in compliance with the requirements hereinafter provided.

2. That a board to carry out the purposes of this act is hereby created, to wn as the board of dental examiners, to consist of five reputable dentists at of and for three years last before appointment actively engaged in the e of dentistry in the District of Columbia, to be appointed by the Commis- s of said District for terms of five years and until their successors are ted: *Provided*, That the first five appointments shall be made for terms of o, three, four, and five years, respectively. A majority of said board shall tute a quorum. Vacancies occurring in said board shall be filled by appoint- f eligible persons for unexpired terms.

3. That it shall be the duty of the board of dental examiners, first, to organ- electing one of their number president and one secretary, to provide neces- ooks and blank forms, and publicly announce the requirements of this act e time, place, and means of complying with its provisions within thirty days ts passage; second, to promptly certify to the health officer for registration o are engaged in the practice of dentistry in said District at the time of e of this act who apply therefor; third, to test the fitness and pass upon the cation of persons desiring to commence the practice of dentistry in said Dis- fter the passage of this act and certify to the health officer for registration s prove, under examination in theory and practice of dentistry, qualified in dgment of the board to practice dentistry in said District; fourth, to report diately information of any violation of this act, and, annually, the transac- f the board to the Commissioners of the District of Columbia: *Provided*, ll graduates of dental colleges which require a three years' course of study e entitled to certificates upon payment of the certification fee and without nation as to their qualifications.

4. That it shall be the duty of every person practicing dentistry in said Dis- t the time of the passage of this act to make application to said board, in prescribed by said board, for certification, and present the certificates thus ed for registration to the health officer within sixty days from the passage of t. Every such person so registering may continue to practice without incur- e penalties of this act.

5. That persons desiring to commence the practice of dentistry in said Dis- fter the passage of this act shall first obtain a certificate of qualification from ard of dental examiners, granted under authority conferred upon said board ion three of this act, and present the same to the health officer for registration.

6. That it shall be the duty of the health officer to register all persons pre- g certificates from said board in a book kept for this purpose, and indorse ach certificate the fact and date of such registration.

7. That certificates issued and indorsed under the provisions of this act shall lence of the right of the person to whom granted to practice under this act.

8. That anyone who shall practice or attempt to practice dentistry in the istrict without having complied with the provisions of this act shall be d guilty of a misdemeanor, and, upon conviction thereof, shall be fined not an fifty nor more than two hundred dollars, and in default of payment of ne shall be imprisoned not less than thirty nor more than ninety days, said hen collected, to be paid into the Treasury of the United States, to the of the District of Columbia: *Provided*, That nothing in this act shall be ned to interfere with physicians in the discharge of their professional duties, th students pursuing a regular uninterrupted dental college course or in de pupilage with a registered dentist.

9. That to provide a fund to carry out and enforce the provisions of this board of dental examiners may charge such fees, not exceeding one dollar h certificate and ten dollars for each examination, as will from time to time,

in the opinion of said board, approved by said Commissioners, be necessary. From such fund all expenses shall be paid by the board: *Provided*, That such expense shall in no case exceed the balance of receipts.

Approved June 6, 1892.

[Extract from An Act making appropriations to provide for the expenses of the government of the District of Columbia, etc.

[2 Sup. R. S., 36.]

That hereafter the police shall, as far as practicable, aid in the enforcement of the garbage regulations.

Approved July 14, 1892.

AN ACT regulating the construction of buildings along alleyways in the District of Columbia.

[2 Sup. R. S., 42.]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That from and after the passage of this act it shall be unlawful to erect or place a dwelling house on or along any alley in the District of Columbia where such alley is less than thirty feet wide and is not supplied with sewerage, water mains, and light: *Provided*, That no dwelling house hereafter erected or placed in any alley shall in any case be located less than twenty feet back clear of the center line of such alley, so as to give at least a thirty-foot roadway and five feet on each side of such roadway clear for a walk or footway, and that it shall be unlawful to erect or place a dwelling house on or along any alley which does not run straight to, and open at right angles upon, one of the public streets bordering the square in which such alley is located, with at least one exit fifteen feet in the clear.

SEC. 2. All acts and parts of acts inconsistent with the provisions of this act are hereby repealed.

Approved July 22, 1892.

[Extract from An Act to provide for the opening of alleys in the District of Columbia.]

[2 Sup. R. S., 42.]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Commissioners of the District of Columbia be, and they are hereby, authorized to condemn, open, extend, widen, or straighten alleys in the District of Columbia upon the presentation to them of the plat of the alley to be condemned, opened, widened, extended, or straightened, accompanied by a petition of the owners of more than one-half of the real estate in the square in which such alley is sought to be opened, widened, extended, or straightened, or when the Commissioners of the District of Columbia shall certify that the preservation of peace, good order, and public morals require that any such alley should be opened, extended, widened, or straightened, or when the health officer of said District shall certify that such opening, extension, widening, or straightening of an alley is necessary for the public health.

* * * * * * *

Approved July 22, 1892.

Extract from An Act making appropriations to provide for the expenses of the government of the District of Columbia, etc.

[2 Sup. R. S., 231.]

That the ordinances of the late board of health of the District of Columbia, as legalized by joint resolution of Congress, approved April twenty-fourth, eighteen hundred and eighty, be, and the same are hereby, declared to have the same force

and effect within the District of Columbia as if enacted by Congress in the first instance, and that the powers and duties imposed upon the late board of health, in and by the said ordinances, are hereby conferred upon the health officer of said district, and that all prosecutions for violations of said ordinances and regulations shall be in the police court of the District of Columbia in the name of the said District: *Provided*, That said regulations shall not be enforced against established industries which are not a nuisance in fact.

Approved August 7, 1894.

AN ACT for the promotion of anatomical science, and to prevent the desecration of graves in the District of Columbia.

[2 Sup. R. S., 388.]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That any public officer or officers, whether directors, trustees, superintendents, wardens, keepers, or managers, having lawful charge of or control over any hospital, prison, jail, or morgue, within the District of Columbia, may, with the approval of the health officer of said District, deliver to the duly authorized agent of any medical college or colleges in the District of Columbia, the bodies of such deceased persons as are required to be buried at the public expense, said bodies to be distributed among the several colleges in proportion to the number of students in each: *Provided, however*, That if the deceased person, during his last illness, requested to be buried, or if within forty-eight hours, after his death any person claiming to be, and satisfying the health officer that he is, a relative by blood or marriage, or friend of the deceased, asks to have the body buried, or if such deceased person was a stranger or traveler who suddenly died, the body shall not be so delivered, but shall be buried.

SEC. 2. That before the bodies of such deceased persons as are mentioned in the first section shall be delivered to the authorized agents of any medical college in the District of Columbia notice shall be given, by the person or persons having lawful charge of said bodies to the relative or friend of the deceased, if known; if not known, the death of the deceased shall be published at least once in a daily newspaper published in the city of Washington, in the District of Columbia, in which publication the full name of the deceased person shall, if possible, be given, and if such name be not known, a description of the person and apparel of the deceased, with information of the place where they may be seen, the expenses of such publication to be paid as other expenses of the District of Columbia are paid: *Provided*, That the persons named in the first section shall not deliver the body of the deceased, as provided in this act, until at least thirty-six hours shall have elapsed since the death of said deceased and giving of said notice or the publication of the same.

SEC. 3. That every person who shall have been duly authorized by the faculty of any medical college in the District of Columbia to receive such dead bodies shall, before receiving them, give to the health officer of said District a bond in the sum of two hundred dollars, with surety satisfactory to said health officer, and conditioned that each dead body shall be used only for the promotion of anatomical and surgical knowledge within the said District of Columbia, and that after having been so used the remains thereof shall be decently buried; and whosoever shall use such body or bodies for any purpose other than that aforesaid, or shall remove the same beyond the limits of the District of Columbia, and whosoever shall sell or buy such body or bodies, or in any way traffic in the same, or who shall disturb or remove bodies from graves in which they have been buried, or who shall disregard the expressed wishes of the deceased, or of his or her friends, where such wishes may be disclosed, as provided for in section one of this act, shall be deemed guilty of a misdemeanor, and shall, on conviction, be imprisoned for a term not less than two nor more than three years, at hard labor, in the jail of said District.

Approved February 26, 1895.

Extract from "An Act making appropriations to provide for the expenses of the government of the District of Columbia," etc.

[2 Sup. R. S., 412.]

And said Commissioners are hereby authorized to make necessary regulations for the collection and disposition of garbage in the District of Columbia, and to annex to said regulations such penalties as will secure the enforcement thereof. *Provided*,

That hereafter no other building for use as a public or private hospital for contagious diseases shall be erected in the District of Columbia within three hundred feet of any building owned by a private individual or any other party than the one erecting the building. All private hospitals in the District of Columbia shall be required to secure a permit from the Commissioners of the District of Columbia, and said hospitals shall be at all times subject to inspection by the health officer of said District or his deputy, and any person or persons refusing to permit such inspection shall each be subject to a fine of not less than fifty dollars nor more than two hundred dollars for each of such refusals.

Approved March 2, 1895.

AN ACT to regulate the sale of milk in the District of Columbia, and for other purposes.

[2 Sup. R. S., 401.]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That from and after the passage of this act no person shall, within the District of Columbia, keep or maintain a dairy or dairy farm without a permit so to do from the health officer of said District; application for said permit shall be made in writing, upon a form prescribed by said health officer: *Provided*, That no applicant for said permit shall be restrained from conducting business until said application has been acted upon by the health officer of the District of Columbia or his duly appointed agent. It shall be the duty of said health officer, upon receipt of said application in due form, to make or cause to be made an examination of the premises which it is intended to use in the maintenance of said dairy or dairy farm; if after such examination said premises are found to conform to the regulations governing dairies and dairy farms within the District of Columbia, said health officer shall issue the permit hereinbefore specified, without charge: *Provided*, That said permit may be suspended or revoked at any time, without notice, by said health officer whenever the milk supply from said dairy or dairy farm is exposed to infection by Asiatic cholera, anthrax, diphtheria, erysipelas, scarlet fever, smallpox, splenic fever, tuberculosis, typhoid fever, typhus fever, or yellow fever, so as to render its distribution dangerous to public health.

SEC. 2. That no person shall bring or send into the District of Columbia for sale any milk without a permit so to do from the health officer of said District; application for said permit shall be made in writing, upon a form prescribed by said health officer, and shall be accompanied by such detailed description of the dairy farm or dairy where said milk is produced or stored as said health officer may require, and by a sworn statement as to the physical condition of the cattle supplying said milk: *Provided*, That no applicant for said permit shall be restrained from conducting business until said application has been acted upon by the health officer of the District of Columbia or his duly appointed agent. If after examination of said application said health officer is satisfied that said milk will be brought into the District of Columbia for sale or consumption without danger to public health, he shall issue, without charge to the applicant, a permit so to do, on condition that none but pure and unadulterated milk shall be, with knowledge of its impurity, brought into said District; that in the management of said dairy or dairy farm said applicant shall be governed by the regulations of the health office of the District of Columbia, approved by the Commissioners of the District of Columbia, issued for dairies and dairy farms in said District, when said regulations do not conflict with the law of the State in which said dairy or dairy farm is located, and that said dairy or dairy farm may be inspected at any time without notice by the health officer of the District of Columbia or his duly appointed representative: *Provided*, That said permit may be suspended or revoked at any time without notice by said health officer whenever the milk supply from said dairy or dairy farm is exposed to infection by Asiatic cholera, anthrax, diphtheria, erysipelas, scarlet fever, smallpox, splenic fever, tuberculosis, typhoid fever, typhus fever or yellow fever, so as to render its distribution dangerous to public health.

SEC. 3. That no person suffering from, or who has knowingly, within a period specified by the health officer of the District of Columbia, been exposed to diphtheria, scarlet fever, erysipelas, smallpox, anthrax, or other dangerous contagious disease, shall work or assist in or about any dairy or dairy farm; no proprietor, manager, or superintendent of any dairy or dairy farm within the District of Columbia shall knowingly permit any person suffering, or exposed as aforesaid, to work or assist in or about said dairy or dairy farm.

SEC. 4. That all milk wagons shall have the name of the owner, the number of

permit, and the location of dairy from which said wagons haul milk, painted thereon plainly and legibly.

SEC. 5. That all grocers, bakers, and other persons having or offering for sale milk shall at all times keep the name or names of the dairymen from whom the milk on sale shall have been obtained posted up in a conspicuous place wherever such milk may be sold or kept for sale.

SEC. 6. That no person shall offer or have for sale in the District of Columbia any unwholesome, watered, or adulterated milk, or milk known as swill milk, or milk from cows that are fed on swill, garbage, or other like substance, nor any butter or cheese made from any such milk.

SEC. 7. That no person shall knowingly offer or have for sale any milk containing more than eighty-eight per cent of watery fluid and less than twelve per cent of total milk solids, of which at least three per cent shall be of fat.

SEC. 8. That no person shall sell, exchange, or deliver, or have in his custody or possession with intent to sell, exchange, or deliver, skimmed milk containing less than nine and three-tenths per cent of milk solids, inclusive of fat.

SEC. 9. That no dealer in milk, and no servant or agent of such a dealer, shall sell, exchange, or deliver, or have in his custody or possession with intent to sell, exchange, or deliver, milk from which the cream, or any part thereof, has been removed, unless in a conspicuous place, above the center or upon the outside of every vessel, can, or package thereof, in which milk is sold, the words "skimmed milk" are distinctly marked in gothic letters, not less than one inch in length.

SEC. 10. That it shall not be lawful for any person or persons to sell or offer for sale, within the District of Columbia, milk taken from any cow less than fifteen days before or ten days after parturition, or from any cow which is known to be suffering from tuberculosis, splenic fever, anthrax, or any general or local disease which is liable to render the milk from said cow unwholesome.

SEC. 11. That it shall be the duty of the health officer of the District of Columbia, under direction of the Commissioners of said District, to make and enforce regulations to secure proper water supply, drainage, ventilation, air space, floor space, and cleaning of all dairies and dairy farms within said District; to secure the isolation of cattle suffering from any contagious disease, and to carry into effect the provisions of this act.[1]

SEC. 12. That the health officer of the District of Columbia, or his duly appointed assistants, shall have the right to enter without previous notice, for the purpose of inspection, any dairy or dairy farm within said District.

SEC. 13. That in all cases of sampling, in the District of Columbia, milk taken for analysis shall be taken, examined, and analyzed in the presence of at least two witnesses, one of whom may be the owner of the milk or his agent; and in all cases such sampling shall be made according to the Babcock method, to wit, dumping the milk from one can to another not less than twice before sampling.

SEC. 14. That prosecutions under this act shall be in the police court of said District, on information signed by the attorney of the District or one of his assistants, and any person or persons violating any of the provisions of this act shall be deemed guilty of a misdemeanor, and shall, on conviction, be punished for the first offense by a fine of not less than five dollars nor more than twenty-five dollars, to be collected as other fines and penalties, or by imprisonment in the workhouse for a period of not more than thirty days, and for the second offense and each subsequent offense, by a fine of not less than fifty dollars nor more than one hundred dollars, or by imprisonment in the workhouse for ninety days, or by both such fine and imprisonment, in the discretion of the court, and if the person so convicted of a second or subsequent offense hold a permit under this act, the same shall be canceled and no permit shall be issued to said person for a period of six months: *Provided*, That any person or persons under this act shall have the privilege, when demanded, of a trial by jury as in other jury cases in the police court.

SEC. 15. That all laws and parts of laws inconsistent with the foregoing be, and the same are hereby, repealed.

Approved, March 2, 1895.

AN ACT to provide for the incorporation and regulation of medical and dental colleges in the District of Columbia.

[29 Stats., 112.]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That it shall be unlawful for any medical or dental college claiming the authority to confer, or actually conferring, the degree of doc-

[1] See page —.

tor of medicine, or doctor of dental surgery, not incorporated by a special act of Congress, to conduct its business in the District of Columbia, unless such college shall be registered by the Commissioners of the District of Columbia and granted by them a written permit to commence or continue business in said District in compliance with the requirements of this act.

SEC. 2. That it shall be the duty of the proper officers of any such college, before commencing or continuing business, to apply to the said Commissioners for registration and a permit to commence or continue business; and said Commissioners are hereby authorized and required to make such regulations [1] concerning the form of such application, the evidence to be adduced in support thereof, and the method of taking such evidence as they may deem best, and shall have power, and it shall be their duty, to give public notice of all hearings upon such applications; and no registration and permit shall be granted until after the Commissioners shall have, by the inquiry and hearing hereinbefore provided for and such other inquiry as they may see fit to make, satisfied themselves that all such medical or dental colleges are fully equipped, both by the character and fitness of the faculty and the sufficiency of their appliances, to give suitable and sufficient instruction in the theory and practice of medicine or dental surgery.

SEC. 3. That it shall be the duty of the proper officers of every medical or dental college not incorporated by a special act of Congress which is now doing business in said District to apply for such certificate and registration within thirty days of the passage of this act; and no such college hereafter sought to be opened in said District shall commence business without first obtaining such registration and permit.

SEC. 4. That such of the officers and of the faculty of any such medical or dental college now in existence, and of every such college hereafter sought to be opened in said District, which shall continue or commence to offer instruction in such capacity without first obtaining registration and permit, as hereinbefore provided, shall be deemed guilty of a misdemeanor, and upon conviction thereof in the police court of said District, upon an information similar to that filed in the case of violations of the police regulations made by the said Commissioners, shall be fined not less than twenty-five nor more than two hundred and fifty dollars, and in default of payment thereof shall be imprisoned in the common jail of said District not less than thirty nor more than ninety days; said fines when collected to be paid into the Treasury of the United States to the credit of the District of Columbia.

SEC. 5. That in any case when such action shall be necessary in the opinion of the said Commissioners to give full effect to the intent of this act they shall have power, and it shall be their duty, to file in the supreme court of the District of Columbia, in the name of the said District, a bill in equity against the proper parties praying an injunction against the opening or continuance of any such college not registered and granted a permit as aforesaid; and jurisdiction is hereby conferred upon such court to hear and determine such causes.

SEC. 6. That all acts and parts of acts and all charters heretofore obtained by any medical or dental college under the general incorporation laws in force in said District, so far as inconsistent with this act, are hereby repealed.

Approved May 4, 1896.

AN ACT to provide for the drainage of lots in the District of Columbia.

[29 Stats., 125.]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That each original lot or subdivisional lot situated on any street in the District of Columbia where there is a public sewer shall be connected with said sewer in such manner that any and all of the drainage of such lot, whether water or liquid refuse of any kind, except human urine and fecal matter, shall flow into said sewer; and if such original lot or subdivisional lot is situated on any street in said District where there is a public sewer and water main, such original lot or subdivisional lot shall be connected with said sewer and also with said water main in such manner that any and all of the drainage of such lot, whether water or liquid refuse of any kind shall flow into said sewer: *Provided*, That the connections required to be made by this act shall be made under the following conditions: When there is on any such original lot or subdivisional lot aforesaid any building used or intended to be used as a dwelling, or in which persons are employed or intended to be employed in any manufacture, trade, or business, or any stable, shed, pen, or place where cows, horses, mules, or other

[1] See page —.

animals are kept, then, and in that instance, such original lot or subdivisional lot shall be connected with a public sewer and water main or with a public sewer, as may be required with this act; and whenever there is no such building, stable, shed, pen, or place, as aforesaid, on such original lot or subdivisional lot, then such lot shall be required to be connected with a public sewer only when it has been certified by the health officer of said District that such connection is necessary to public health.

SEC. 2. That it shall be the duty of the Commissioners of said District to notify the owner or owners of every lot required by this act to be connected with a public sewer or water main, as the case may be, to so connect such lot, the work to be done in accordance with the regulations governing plumbing and house drainage in said District.

SEC. 3. That if the owner or owners of any such lot neglect or refuse to make such connections as are required by this act within thirty days after the receipt of such notice, such owner or owners shall be deemed guilty of a misdemeanor, and shall, on conviction in the police court of said District, be punished by a fine of not less than one dollar nor more than five dollars for each day he, she, or they fail or neglect to make such connections.

SEC. 4. That in case the owner or owners of any such lot be a nonresident or nonresidents of the District of Columbia, or can not be found therein, then, and in that case, the said Commissioners shall give notice, by publication twice a week for two weeks in some daily newspaper published in the city of Washington, to such owner, directing the connection of such lot with such public sewer or with such public sewer and water main, as the case may be: *Provided, however*, That if the residence or place of abode of the said nonresident lot owner be known or can be ascertained on reasonable inquiry, then, and in that case, a copy of the aforesaid notice shall be mailed to said nonresident, addressed to him in his proper name at his said place of residence or abode, with legal postage prepaid; and in case such owner or owners shall fail or neglect to comply with the notice aforesaid within thirty days it shall be the duty of said Commissioners to cause such connection to be made, the expense to be paid out of the emergency fund; such expense, with necessary expense of advertisement, shall be assessed as a tax against such lot, which tax shall be carried on the regular tax roll of the District of Columbia, and shall be collected in the manner provided for the collection of other taxes.

Approved, May 19, 1896.

AN ACT to establish certain harbor regulations for the District of Columbia.

[29 Stat., 126.]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That it shall be unlawful for any owner or occupant of any wharf or dock, any master or captain of any vessel, or any person or persons to cast, throw, drop, or deposit any ballast, dirt, oyster shells, or ashes in the water in any part of the Potomac River or its tributaries in the District of Columbia, or on the shores of said river below high-water mark, unless for the purpose of making a wharf, after permission has been obtained from the Commissioners of the District of Columbia for that purpose, which wharf shall be sufficiently inclosed and secured so as to prevent injury to navigation.

SEC. 2. That it shall be unlawful for any owner or occupant of any wharf or dock, any captain or master of any vessel, or any other person or persons to cast, throw, deposit, or drop in any dock or in the waters of the Potomac River or its tributaries in the District of Columbia any dead fish, fish offal, dead animals of any kind, condemned oysters in the shell, watermelons, cantaloupes, vegetables, fruits, shavings, hay, straw, ice, snow, filth, or trash of any kind whatsoever.

SEC. 3. That any person or persons violating any of the provisions of this act shall be deemed guilty of a misdemeanor, and on conviction thereof in the police court of the District of Columbia shall be punished by a fine not exceeding one hundred dollars or by imprisonment not exceeding six months, or by both such punishments, in the discretion of the court.

SEC. 4. That nothing in this act contained shall be construed to interfere with the work of improvement in or along the said river and harbor, under the supervision of the United States Government.

SEC. 5. That all acts or parts of acts inconsistent herewith are hereby repealed.

Approved, May 19, 1896.

AN ACT relating to the testimony of physicians in the courts of the District of Columbia.

[29 Stats., 138.]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That in the courts of the District of Columbia no physician or surgeon shall be permitted, without the consent of the person afflicted, or of his legal representative, to disclose any information, confidential in its nature, which he shall have acquired in attending a patient in a professional capacity and which was necessary to enable him to act in that capacity, whether such information shall have been obtained from the patient or from his family or from the person or persons in charge of him: *Provided*, That this act shall not apply to evidence in criminal cases where the accused is charged with causing the death of, or inflicting injuries upon, a human being, and the disclosure shall be required in the interests of public justice.

Received by the President. May 13, 1896.

[NOTE BY THE DEPARTMENT OF STATE.—The foregoing act having been presented to the President of the United States for his approval, and not having been returned by him to the House of Congress in which it originated within the time prescribed by the Constitution of the United States, has become a law without his approval.]

AN ACT to regulate the practice of medicine and surgery, to license physicians and surgeons, and to punish persons violating the provisions thereof in the District of Columbia.

[29 Stats., 196.]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there shall be, and is hereby, created a board of medical supervisors of the District of Columbia, which shall consist of the presidents of the three boards of medical examiners hereinafter provided for and two persons, not physicians, one of whom shall be learned in the law, to be appointed by the Commissioners of the District of Columbia, each for a period of three years, or until his successor is appointed: *Provided*, That not more than two members of the board of supervisors shall be adherents of any one system of medical practice: *And provided further*, That said Commissioners may remove, after due notice and hearing, any member of said board for neglect of duty or other just cause, and that in case of the death, resignation, or removal of any member the vacancy for the unexpired term of said member shall be filled in the same manner as other appointments are made.

SEC. 2. That the said board of medical supervisors shall elect a president, a vice-president, and a secretary. Said board shall make, subject to the approval of the Commissioners of the District of Columbia, such regulations as may be necessary to carry into effect the provisions of this act. Said board shall hold such meetings as may be necessary for the transaction of business. Said board shall supervise all examinations provided for in this act, and shall issue all licenses to practice medicine and surgery or midwifery in the District of Columbia. Said board shall keep an official record of its meetings, also an official register of all applicants for examination for licenses to practice medicine and surgery in the District of Columbia. Said register shall show the name, age, place and duration of residence of each candidate, the time he or she has spent in medical study, in or out of medical schools, and the names and locations of all medical schools which have granted said applicant any degree or certificate of attendance upon lectures in medicine. Said register shall also show whether said applicant was rejected or licensed under this act. Said register shall be prima facie evidence of all matters contained therein. The secretary aforesaid may be elected by said board from others than its own members; said secretary shall also act as treasurer, and shall give such bond as may be required by the Commissioners of the District of Columbia; said secretary shall have the power to administer oaths upon such matters as pertain to the business of said board; said secretary shall mail to the address of each applicant a notice of the time and place of examination, not less than seven days before the examination, and at a longer period if requested by the applicant at the time of making application.

SEC. 3. That from and after the passage of this Act, all persons desiring to practice medicine and surgery in any of their branches in the District of Columbia shall apply to said board of medical supervisors for a license to do so. Applicants shall submit to examination upon the following-named branches, to wit: Anatomy, physiology, chemistry, pathology, materia medica and therapeutics, hygiene, histology, practice of medicine, surgery, obstetrics and gynecology, diseases of the

e and the ear, medical jurisprudence, and such other branches as said board all deem advisable. Each applicant shall be certified by said board for examination as speedily as possible to the board of medical examiners whose members e adherents to the system of medicine which said applicant desires to practice; t said board shall not certify for examination any applicant until satisfactory oof is furnished that he or she is of good moral character and over twenty-one ars of age, nor until he or she has presented a diploma conferring upon him or r the degree of doctor of medicine, issued by some medical college authorized law to confer such degree: *Provided*, That said diploma, if issued prior to ly first, eighteen hundred and ninety-eight, shall be accompanied by satisfacry evidence that said applicant has studied medicine and surgery for not less an three years prior to the issue thereof, and if issued subsequent to June thirth, eighteen hundred and ninety-eight, shall be accompanied by satisfactory evince that the applicant has studied medicine and surgery for not less than four ars prior to the issue of said diploma. All examinations shall be both theoretil and practical, and of sufficient severity to test a candidate's fitness to practice edicine and surgery.

SEC. 4. That said application for a license to practice medicine and surgery in the strict of Columbia shall be made to the secretary of said board of medical superors upon a form prescribed by said board, and shall be accompanied by a fee of 1 dollars. Each application shall be in the hands of said secretary not less than o weeks before the day set for examination, and any application may be rejected refusal to furnish any of the information called for, or for other irregularity. l applications shall be kept on file by said secretary.

SEC. 5. That immediately after the passage of this Act the Commissioners of the strict of Columbia shall appoint three boards of medical examiners, one to be own as the board of medical examiners of the District of Columbia, and to be mposed of five physicians in good standing, adherents to the regular system of edical practice; one to be known as the board of homeopathic medical examins of the District of Columbia, and to be composed of five physicians in good nding, adherents to the homeopathic system of medical practice, to be selected om a list of not less than ten names, submitted by a majority vote at some regar meeting of the Washington Homeopathic Medical Society, and one to be own as the board of eclectic medical examiners of the District of Columbia, to composed of five physicians in good standing, adherents to the eclectic system medical practice, to be selected from a list of not less than ten names, submitted a majority vote at some regular meeting of the Eclectic Medical Society of the strict of Columbia. Of the members of each board first appointed, one shall be pointed to serve one year, two to serve two years, and two to serve three years, d thereafter each member of each board shall be appointed to serve three years, until his successor is appointed: *Provided*, That no member of either of said ards shall have been engaged in the practice of medicine and surgery in the Dis-ict of Columbia for less than five years at the time of his appointment: *And ovided further*, That in event of the failure of the Washington Homeopathic edical Society or of the Eclectic Medical Society of the District of Columbia, ter fifteen days' notice by the Commissioners of the District of Columbia, to subit the list of names aforesaid, said Commissioners may appoint the members of the ard of homeopathic medical examiners or of the board of eclectic medical examers without restriction as to nomination by the society in default: *And provided rther*, That said Commissioners may at any time remove any member of either the boards named in this Act for neglect of duty or other just cause, and that case of the death, resignation, or removal of any member the vacancy for the nexpired term of said member shall be filled in the same manner as other appointents are made.

SEC. 6. That each member of said boards of medical examiners of the District of olumbia shall, before entering upon the discharge of his duties, take an oath to hminister fairly and impartially the provisions of this Act. Each board shall ect from its own members a president and a secretary. Each board shall hold a eeting for examination in the city of Washington on the second Thursday in nuary, April, July, and October of each year, and continuing so long as may be ecessary to examine all applicants, and other meetings shall be held at such times 1 the board of medical supervisors shall direct. Each of said boards shall exam-ie, at the meeting immediately following the receipt of the proper certificates om the board of medical supervisors, all applicants for licenses to practice medine and surgery in the District of Columbia so certified.

SEC. 7. That the several boards of medical examiners shall, not less than one eek prior to each examination, submit to the board of medical supervisors of the istrict of Columbia questions for thorough examinations in anatomy, physiology,

chemistry, pathology, materia medica and therapeutics, hygiene, histology, practice of medicine, surgery, obstetrics and gynecology, diseases of the eye and the ear, medical jurisprudence, and such other branches as said board of medical supervisors may direct. From the lists of questions so submitted said board of medical supervisors shall select the questions for each examination, and such questions shall be the same for all candidates, except that in the departments of therapeutics, practice of medicine, and materia medica the questions shall be in harmony with the system of medicine selected by the candidate. Said examinations shall be conducted orally and in writing, in accordance with the rules and regulations prescribed by the board of medical supervisors, and shall embrace the subjects as stated in section three of this Act. An official report of the result of each examination, signed by the president and the secretary and each acting member of the board of medical examiners conducting such examination, stating the average attained by each candidate in each branch, the general average, and the result of the examination, whether successful or unsuccessful, shall be transmitted to the board of medical supervisors within fifteen days from the date of such examination. Said report shall embrace all the examination papers, questions, and answers thereto. All such examination papers shall be kept for reference and inspection for a period of not less than five years.

SEC. 8. That if in the opinion of a majority of the board of medical supervisors, after a careful examination of the report of the board of medical examiners by which any applicant was examined, said applicant has fairly and successfully passed such examination as hereinbefore provided for, the board of medical supervisors of the District of Columbia shall, as soon thereafter as possible, issue to him a license signed by the president and the secretary of said board and attested by the seal of the District of Columbia, which license shall entitle said applicant, after it is registered as hereinafter provided, to practice medicine and surgery in the District of Columbia: *Provided*, That a license shall be issued upon application, free of cost and without examination, to each physician who is registered at the health office of the District of Columbia at the time of the passage of this act, and to physicians who may change their residence to the District of Columbia from any State or Territory where medical laws and medical examining boards exist, the presentation of a certificate or license from a medical examining board, if found upon due inquiry to be true and genuine, being sufficient evidence of right to registration and certification under the provisions of this act: *Provided*, That the medical laws and examining boards of such States and Territories grant equal rights and recognition to the licentiates of the board herein created. All licenses issued by said board shall be numbered consecutively, and a register shall be kept by the secretary showing the number of each license, the date of issue, and to whom issued.

SEC. 9. That the board of medical supervisors of the District of Columbia shall make, subject to the approval of the Commissioners of said District, such regulations as may be necessary to determine the qualifications of women desiring hereafter to commence the practice of midwifery in the District of Columbia, and shall issue licenses to such as are, after examination, found qualified; but no fee shall be charged for the examination of any applicant for such licenses, and no applicant who has been rejected shall be reexamined within one year from such rejection: *Provided*, That a license shall be issued upon application, free of cost and without examination, to each midwife registered at the health office of the District of Columbia at the time of the passage of this act.

SEC. 10. That the board of medical supervisors of the District of Columbia may, by a vote of four members, refuse to grant or may revoke a license, and may cause the name of any person to be removed from the record of the supreme court of the District of Columbia and from the register of the health office for any of the following causes, to wit: The employment of fraud or deception in passing the examinations provided for in this act, chronic inebriety, the practice of criminal abortion, conviction of crime involving moral turpitude, or of unprofessional or dishonorable conduct. In complaints under this section the accused shall be furnished with a copy of the complaint and given a hearing before said board in person or by attorney, and witnesses may be heard for and on behalf of the accused, and for and on behalf of the said board. Appeal from the decision of said board may be taken to the court of appeals of the District of Columbia, and the decision of said court shall be final. Said board may at any time within two years from the refusal or revocation of a license, or the cancellation of registration under this section, by a vote of four members, issue, without examination, a new license to the person so affected, restoring to him or her all the rights and privileges of which he or she had been deprived by said board.

SEC. 11. That any person receiving a license as hereinbefore provided shall have

t recorded in the office of the clerk of the supreme court of the District of Columia within three months from the date of said license, and the place and date of ecord shall be certified thereon by said clerk; and the holder of the license shall ay to the clerk of said court a fee of fifty cents for making the record. The older of said license shall, after the same has been recorded, exhibit the same t the health office, and shall register, in a book provided for that purpose, his or er name and address. Whenever a license is revoked by said board of medical upervisors the secretary thereof shall report that fact in writing to the clerk of aid court and to the health officer of the District of Columbia, who shall therepon cancel such registration.

SEC. 12. That this act shall not apply to commissioned surgeons of the United tates Army, Navy, or Marine-Hospital Service, nor to regularly licensed physiians and surgeons in actual consultation from other States or Territories, nor to egularly licensed physicians and surgeons actually called from other States or erritories to attend specified cases in the District of Columbia, nor to the treatnent of any case of actual emergency, nor to the practice of massage or the soalled Swedish movement cure, nor to the use of ordinary domestic remedies vithout fee, gift, or consideration of any kind.

SEC. 13. That from and after the passage of this act any person practicing medicine and surgery or midwifery in the District of Columbia, or who shall publicly profess to do so, without first having obtained from the board of medical supervisors of the District of Columbia a license and registered the same as herein provided, or in violation of any of the provisions of this act or any of the rules and regulations made by authority conferred herein, or after his license or registration, has been canceled by order of said board of medical supervisors of the District of Columbia, shall be deemed guilty of a misdemeanor, and, upon conviction thereof, shall be punished for each offense by a fine of not less than fifty nor more than five hundred dollars, or by imprisonment in the District jail for a period of not less than ten nor more than ninety days, or by both such fine and imprisonment. It shall be the duty of the United States district attorney for the District of Columbia to prosecute all violations of the provisions of this act.

SEC. 14. That the secretary of the board of medical supervisors shall be paid for taking testimony the same fee that is allowed to an examiner in chancery for the same service. The expense of said board and of the examinations shall be paid from the license fees herein provided for; and if any surplus remain on the thirtieth day of June of each year the members of the board of medical supervisors appointed as such shall be paid such reasonable compensation as the Commissioners of the District of Columbia may determine, and any balance then remaining shall be divided among the three boards of medical examiners in proportion to the number of candidates examined, each member of each board of medical examiners to receive such part of the entire amount paid as that board itself shall determine.

SEC. 15. That nothing in this act shall be construed to conflict with an act for the regulation of the practice of dentistry in the District of Columbia, approved June sixth, eighteen hundred and ninety-two, nor to interfere with graduates of standard dental colleges, registered under the provisions of said act, in the exercise of their profession to the extent and within the limits of the curriculum of such standard dental colleges.

SEC. 16. That all act or parts of acts, general or special, not in accordance with the provisions of this act, be, and are hereby, repealed.

Approved June 8, 1896.

Extract from An Act making appropriations to supply deficiencies, etc.

[29 Stats., 281.]

Provided, That the Commissioners of the District of Columbia are hereby authorized to make rules and regulations for the government of said smallpox hospital.

Approved June 8, 1896.

AN ACT to punish the impersonation of inspectors of the health and other departments of the District of Columbia.

[29 Stats., 619.]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That it shall be unlawful for any person in the District of Columbia to falsely represent himself or herself as being an inspector

of the health department of said District, or an inspector of any department of the District government; and any person so offending shall be deemed guilty of a misdemeanor, and on conviction in the police court of said District shall be punished by a fine of not less than ten dollars nor more than fifty dollars for the first offense, and for each subsequent offense by a fine of not less than fifty dollars nor more than one hundred dollars, or imprisonment in the jail of the District not exceeding six months, or both, in the discretion of the court.

Approved, March 2, 1897.

AN ACT authorizing the Commissioners of the District of Columbia to charge a fee for the issuance of transcripts from the records of the health department.

[29 Stats., 695.]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Commissioners of the District of Columbia be, and they are hereby, authorized and directed to collect a fee of fifty cents, to be paid to the collector of taxes, and by him to be deposited in the United States Treasury to the credit of the District of Columbia for each transcript from the records of births, deaths, and marriages in the health department of said District: *Provided*, That no one transcript shall be made so as to apply to more than one birth, death, or marriage: *And provided further*, That no fee shall be charged for transcripts furnished the various departments of the United States Government for official purposes.

SEC. 2. That this act shall take effect thirty days after its passage.

Approved, March 3, 1897.

AN ACT to prevent the spread of contagious diseases in the District of Columbia.

[29 Stats., 695.]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That for the purposes of this act the term "contagious disease" shall be held to mean Asiatic cholera, yellow fever, typhus fever, smallpox (including varioloid), leprosy, the plague, and glanders, or any of these diseases by whatsoever name it may be designated; the term "case of contagious disease" shall be held to mean any person suffering from any such disease. Any person shall be held to be suffering from a contagious disease who is so infected by such disease as to be capable of transmitting it to others. The presence of the ordinary clinical symptoms of any contagious disease shall be prima facie evidence that such case is or was such a disease; and the presence in such case of the specific bacteria of such disease shall be conclusive evidence that such case is or was such disease. The provisions of this act shall apply to every ship, vessel, steamer, boat, or craft lying or being in the rivers, harbors, or other waters within the jurisdiction of said District, and to every tent, van, hovel, barn, outhouse, cabin, or other place in said District. The term "person in charge of a case of contagious disease" shall be held to mean, first, the head of the family in which such case belongs; second, in his absence or disability or in case he be the person sick, the nearest relative or relatives of such case present on the premises where such case is, and being in attendance on him; third, in the absence of such relatives everyone in attendance on such person; fourth, in the absence of anyone so in attendance, everyone in charge of the premises where such person is.

SEC. 2. That every physician attending on or called in to visit, or examining any case of contagious disease in the District of Columbia, shall immediately cause such case to be properly isolated, and at once send to the health officer of said District a certificate signed by him, which said certificate shall state the name of the disease and the name, age, sex, and color of the person suffering therefrom, and shall set forth by street and number, or otherwise sufficiently designate the house, room, or other place in which said person may be located, together with such other reasonable information relating thereto as may be required by said health officer: *Provided*, That attending, visiting, or examining any person suffering from a contagious disease shall be prima facie evidence that any physician so doing was aware that such person was suffering from such disease: *And provided further* That any case of sickness, the symptoms of which so resemble the symptoms of any contagious disease that such case can not be immediately distinguished from such disease, shall be properly isolated by the person in charge thereof until the nature of such

ckness is positively determined, or until the case has completely recovered or ed; and if such case recovers or dies without the true nature of the disease hav- g been ascertained, it shall be the duty of the person in charge of such case to lopt such measures of isolation and disinfection as are required by this act in ses of contagious diseases.

SEC. 3. That any physician attending on or visiting any case of contagious dis- se in said District shall send to said health officer a certificate signed by him, rtifying to the recovery or death of such case, within twenty-four hours after he comes aware of such recovery or death. No person suffering from any con- gious disease shall be certified as having recovered therefrom until he is entirely e from danger of communicating such disease to others.

SEC. 4. That whenever any person in said District is suffering from any con- gious disease, or suspected of being suffering from such disease, and no physician in attendance on or called in to visit, or examines such person, it shall be the ty of the person in charge of such case to properly isolate the same and to send said health officer certificates relative thereto, in the same manner as is required this act of physicians attending on or called in to visit, or examining like cases.

SEC. 5. That whenever it comes to the knowledge of said health officer, either by e certificate hereinbefore provided for or otherwise, that any person in said Dis- ct is suffering from any contagious disease, said health officer shall cause one or ore suitable placards or warning signs to be placed at once in a conspicuous sition or positions upon, at, or near the front entrance or entrances to the prem- s in which such person is, so that the same can be distinctly seen by passers-by; id placards or signs shall contain, printed thereon in large letters, the name of e disease from which said person is suffering, and, in small letters, a statement the law in reference to entrance to and exit from such house, and in reference interfering with such placard or warning sign; if such premises be a hospital, ylum, hotel, or apartment house said placards or warning signs may, in the dis- etion of said health officer, be placed in a conspicuous position or positions within id premises, at such place or places as said health officer may determine; said lacards or warning signs shall be displayed as aforesaid until such premises and e contents thereof are disinfected to the satisfaction of said health officer, as rtified by him, and for such time thereafter as may be necessary to demonstrate e freedom of occupants of said premises from contagious disease, namely, in the se of cholera and yellow fever, five days; typhus fever, twenty-one days; small- ox, sixteen days; the plague, fourteen days; and glanders, twenty-one days: *Pro- ided*, That in addition to or in lieu of the placards or warning signs provided for bove said health officer may station a watchman or watchmen at such building r premises for the purpose of securing compliance with the provisions of this act.

SEC. 6. That no person shall in said District, without the written consent of said ealth officer, handle, deface, obliterate, remove, or in any manner conceal any lacard or warning sign displayed as aforesaid; the person in charge of the build- ng or premises where such placard or sign is or has been displayed, and which id placard or warning sign has been to his knowledge defaced, obliterated, moved, or concealed, shall forthwith report that fact in writing to said health fficer unless he has good reason to believe that such placard or sign has been moved by authority of said health officer.

SEC. 7. That it shall be the duty of the person in charge of any case of conta- ious disease in said District to cause such case, immediately upon the discovery ereof, to be removed to a room or rooms on the premises where it occurs, as far s practicable from rooms occupied by other person not affected by such conta- ious disease; to prevent the entrance into the building in which such sick per- on is of any person or persons except those dwelling therein at the time of the iscovery of such disease therein, the physician or physicians in attendance, the urse or nurses, and such persons as may be especially authorized in writing by aid health officer to enter such building; to properly disinfect or cause to be prop- rly disinfected all articles in use in the room or rooms in which such sick person s, and all excreta from such sick person before such articles or excreta are removed rom said room; and within three days after the complete recovery, the death, or emoval of such case, to cause the premises in which such sick person has been nd the persons and articles thereon to be properly disinfected.

SEC. 8. That the disinfection required by this Act shall be performed as follows:

(A) All dejecta, vomit, and sputum of persons suffering from contagious dis- ases shall be received and shall remain for not less than one hour in vessels ontaining a sufficient quantity of an acid solution of bichloride of mercury (bichlo- ride of mercury, one part; hydrochloric acid, two parts; water, one thousand parts), or other germicidal agent which has been approved by said health officer.

(B) All articles which have been exposed to infection but not included among

those enumerated in the preceding paragraph, shall be (a) exposed for no
than thirty minutes to steam at a temperature of not less than one hundre
five degrees centigrade, or (b) boiled for not less than thirty minutes, arti
be disinfected to be completely submerged, or (c) soaked in the acid solut
bichloride of mercury aforesaid for not less than one-half hour, or in a tw
centum aqueous solution of carbolic acid for not less than four hours, or in
germicidal solution approved by said health officer, or thoroughly washe
such solution, or (d) exposed to the vapor of formaldehyde or other germ
agent for such time and in such strength as may be specified by said health
(C) Persons who have convalesced from any contagious disease or wh
been exposed to such disease shall be thoroughly washed with soap and hot
and sponged with an acid solution of bichloride of mercury, as follows: I
ride of mercury, one part; hydrochloric acid, two parts; water, two th
parts; or other germicidal solution approved by said health officer. The bo
persons who have died from any contagious disease shall be immediately
oped in a sheet saturated with a five per centum aqueous solution of carbol
or other germicidal solution approved by said health officer.

SEC. 9. That if the person who is or has been in charge of any case of c
ous disease in said District shall fail or refuse to properly disinfect said pr
and persons and articles thereon, or cause the same to be properly disin
within three days after the removal, recovery, or death of such case, said
officer is hereby authorized to cause the same to be properly disinfected
pay the cost thereof out of any appropriation available for the purpose, a
court before whom such person is tried may require him to pay such costs i
tion to suffering such penalty as is hereinafter specified: *Provided*, That
such person is unable, in the opinion of said health officer, to properly di
such premises, or any part thereof, or any person or persons, article or a
thereon, such premises or parts thereof, person or persons, article or articl
be disinfected by said health officer and the cost of such disinfection paid
any appropriation available therefor, including payment for articles belon
the poor necessarily destroyed.

SEC. 10. That no person in said District suffering from any contagious d
or residing either permanently or temporarily in any building where there i
disease (or, if such building be a hospital, asylum, hotel, or apartment house,
apartments where there is such disease) shall leave such building, or apart
except with a written permit from said health officer, and then only in acco
with the terms of said permit; or with a certificate from said health office
fying that such person can leave said building or apartments without dan
public health.

SEC. 11. That no person in said District shall knowingly enter any build
if such building be a hospital, asylum, hotel, or apartment house in the apa
in which exists any case or cases of contagious disease or any building infec
such disease except persons dwelling in such building at the time of the dis
of such disease therein, the attending physician or physicians, the nurse or n
and such other person as may be especially authorized in writing by said
officer to do so.

SEC. 12. That no person shall, in said District, keep or retain the body
person who has died of any contagious disease, except in accordance with t
lowing provisions: Such body shall not be placed in an ice box, but shall,
diately after death, be completely enveloped, and shall thereafter rem
enveloped, in a sheet saturated with a five per centum aqueous solution of c
acid or other germicidal solution, as provided in section eight; such bod
then be immediately placed in a coffin or casket, which shall at once be t
closed with screws or clamps and remain so closed; such body shall be b
cremated, or transported beyond the limits of said District within thirty-six
after death.

SEC. 13. That no body of any person who has died of Asiatic cholera, yellow
typhus fever, smallpox, including varioloid, the plague, leprosy, or glanders
be carried into or out of the District of Columbia except in transit: *Provided*
this section shall not apply to the transportation of bodies in hearses or
takers' wagons for burial in adjoining States.

SEC. 14. That in said District the body of any person who has died of an
tagious disease shall not be carried from place to place except for the purp
burial, cremation, or shipment, nor in any conveyance other than a hea
undertaker's wagon; such body shall not be taken into any place of public a
blage, nor shall any person attend the funeral of any such body except adult
bers of the immediate family of the deceased, his nearest friends, not exc
two, and other persons whose attendance is actually necessary.

SEC. 15. That no person shall, in said District, without a written permit from said health officer, and then only in accordance with the terms of said permit, carry or remove, or cause to be carried or removed, from place to place, any person suffering from any contagious disease, or who has been recently exposed to infection by such disease, and is liable soon to develop the same, or to carry the infection of such disease. No person shall, in said District, expose himself or any other person, or permit his minor child or ward to expose himself, while suffering from any contagious disease or when, having been exposed to such disease, liable soon to develop the same or to carry the infection thereof.

SEC. 16. That no person shall, in said District, without a written permit from said health officer, and then only in accordance with the terms of said permit, carry or remove, or cause to be carried or removed, from place to place, any thing or things which have been exposed to any case of contagious disease and which have not been properly disinfected since such exposure as certified by said health officer.

SEC. 17. That the principal, teacher, or other person or persons in charge of any school, seminary, college, or Sunday school in said District shall not permit any person to attend such school, seminary, college, or Sunday school who is or has been suffering from or exposed to any contagious disease and whose exclusion from such school, seminary, college, or Sunday school has been certified to by said health officer as in his opinion necessary to prevent the spread of such contagious disease; persons so excluded may be permitted to return to such school, seminary, college, or Sunday school upon the presentation of a certificate from said health officer that they may do so without danger of spreading such contagious disease.

SEC. 18. That no parent, master, or custodian of any child or minor, having power or authority to prevent, shall, in said District, permit such child or minor to be unnecessarily exposed or to needlessly expose any other person to the infection of any contagious disease.

SEC. 19. That no person suffering from any contagious disease shall, in said District, enter any public conveyance, nor shall any person in charge of anyone so suffering permit such an one to enter such conveyance without previously making it known to the owner or driver thereof that he, or the person in charge, as the case may be, is suffering from such contagious disease; any person suffering from such disease and any person in charge of one so suffering having entered any public conveyance shall forthwith report in writing to said health officer the time of such use, the number and kind of conveyance used, and, if known, the name of the driver. The owner or driver of any public conveyance, either or both of them, in which has been conveyed any person suffering from a contagious disease shall immediately have such conveyance properly disinfected, and said conveyance shall not again be used until it has been disinfected to the satisfaction of said health officer, as certified by him.

SEC. 20. That no person shall, in said District, knowingly let, or cause to be let to any person, or put any other person in possession of, any house, room, or part of a house or room, in which any person has been confined by reason of any contagious disease, until such house or room or part of a house or room has been disinfected to the satisfaction of said health officer, as certified by him.

SEC. 21. That whenever any person in said District is an inmate of any premises occupied by three or more families, or of any tenement house, boarding house, lodging house, hotel, or apartment house, and is suffering from any contagious disease, and can not, in the opinion of said health officer, be properly isolated in such premises, tenement house, lodging house, hotel, or apartment house, said person shall be removed as expeditiously as possible, under direction of said health officer, to the public hospital or to such other place, satisfactory to said health officer, provided by and at the expense of said person, his parents or guardians; if such person can not, in the opinion of said health officer, be removed as aforesaid without endangering his life, said health officer may cause such persons in the vicinity to be removed as are in danger of contracting the disease. Any person suffering from any contagious disease, and requiring to be treated at public expense, may, at the discretion of said health officer, be removed to the public hospital for treatment.

SEC. 22. That in every hospital and dispensary in said District there shall be provided and maintained a suitable room or rooms for the isolation of persons infected with any contagious disease aforesaid, or any other disease ordinarily recognized as contagious; such persons shall, immediately upon the discovery of the nature of their sickness, be separated from the other persons and other patients at such dispensary or hospital. It shall be the duty of the physician or physicians, of the officers, managers, and of everyone in charge of a hospital or dispensary,

and of everyone who has any duty or office in respect to patients in course of treatment, or persons who apply for treatment or care at a dispensary or hospital, to see that a report is immediately made to said health officer of every person so applying, infected with any contagious disease mentioned in section one of this act, who comes to their knowledge, and that such person or persons infected with any contagious disease aforesaid, or any other disease ordinarily recognized as contagious, are properly isolated and kept separated from other persons and other patients.

SEC. 23. That every person in said District having been exposed to the infection of smallpox (including varioloid) shall be at once successfully vaccinated, or vaccinated a sufficient number of times to make it evident that successful vaccination is impossible.

SEC. 24. That it shall be the duty of every person in said District to be successfully vaccinated, or to be vaccinated a sufficient number of times to make it evident that successful vaccination is impossible, whenever the Commissioners of said District shall, by proclamation, declare such action on the part of every person, within a reasonable time, to be stated in said proclamation, necessary for public health: *Provided*, That this section shall not apply to persons who prove to the satisfaction of said health officer that they have been successfully vaccinated, or repeatedly vaccinated as aforesaid, within five years from the date of said proclamation, or that they have had smallpox or varioloid.

SEC. 25. That the Commissioners of said District be, and they are hereby, authorized and empowered, whenever said District is, in their judgment, threatened or afflicted with any contagious disease to cause house-to-house inspections to be made, to require, especially, the cleansing and disinfection of premises or parts of premises, to provide accommodations for such persons as may be threatened by or afflicted with any of the diseases aforesaid, to provide gratuitous vaccination and distribution of disinfectants, and to do or cause to be done such other acts not contrary to law as may be necessary, in their judgment, to prevent the introduction or spread in said District of any disease aforesaid.

SEC. 26. That no person shall, in said District, knowingly make, sign, or deliver any report or certificate, herein provided for, not in accordance with fact.

SEC. 27. That said health officer, and any employee or employees of the health department of said District duly detailed for such purpose, shall have the right to enter and inspect premises or places in said District where there is, or is believed to be, one or more cases of contagious disease; such inspection to be made between the hours of seven o'clock antemeridian and seven o'clock postmeridian, or at such other times as may, in the opinion of said health officer, be found necessary to secure the enforcement of the provisions of this act.

SEC. 28. That no person in said District shall molest, hinder, or in any manner prevent said health officer, or any person in the service of said health department, from performing any duty imposed upon him or them by the provisions of this act.

SEC. 29. That any person who shall violate, or aid or abet in violating, any of the provisions of this act shall be deemed guilty of a misdemeanor, and upon conviction thereof be punished by a fine of not less than five dollars nor more than two hundred dollars, or by imprisonment in the jail of the District of Columbia, or in such other place as may be designated by the court, for not less than five days nor more than six months, or by both such fine and imprisonment, in the discretion of the court.

SEC. 30. That prosecutions under this act shall be in the police court of said District, in the name of said District, on information signed by the attorney of said District or one of his assistants, at the instance of said health officer: *Provided*, That any person or persons tried under this act shall have the privilege, when demanded, of a trial by jury, as in other jury cases in said police court.

SEC. 31. That any person arrested in the District of Columbia for alleged violation of law, whose detention in a police station, workhouse, or jail would, in the opinion of the health officer of said District, expose the occupants of any such police station, workhouse, or jail to infection by any contagious disease aforesaid, or any other disease ordinarily recognized as contagious, may be confined in any hospital in which are treated patients suffering from such contagious disease as that by which said person is believed to be infected, or in such other place as may be designated by the court.

SEC. 32. That all laws and parts of laws inconsistent with the foregoing be, and the same are hereby, repealed.

Approved, March 3, 1897.

REGULATIONS OF THE COMMISSIONERS OF THE DISTRICT OF COLUMBIA RELATING TO PUBLIC HEALTH.

OFFICE OF THE COMMISSIONERS OF THE DISTRICT OF COLUMBIA,
Washington, July 18, 1887.

ORDERED.

The Commissioners having learned that a dangerous communicable disease prevails among domestic animals in the vicinity of the District, which by contagion or transportation may affect the general health and safety, the Commissioners in pursuance of the provisions of section 8 of the act approved May 29, 1884, order the following measures for the prompt suppression of the same.

1. Upon the recommendation of the Commissioner of Agriculture the Chief of the Bureau of Animal Industry in the U. S. Department of Agriculture is hereby authorized and empowered to act as veterinarian for the District of Columbia for the purposes named in the act above quoted.

2. So much of the rules and regulations prepared by the Commissioner of Agriculture in accordance with the requirements of the act aforesaid, and published under date of April 15, 1887, as are applicable to the District of Columbia, are hereby approved and adopted by the Commissioners as the regulations for the District: *Provided* That wherever said regulations require report to and action by the Commissioner of Agriculture, the Chief of the Bureau of Animal Industry acting as veterinarian for the District, shall submit the requisite reports and recommendations for the consideration of and action by the Commissioners of the District of Columbia.

3. The legally appointed agents and inspectors of the Bureau of Animal Industry, are hereby empowered, under the direction of the Chief of the Bureau to discharge corresponding duties for the District of Columbia, and all citizens of the District are hereby directed and required to recognize and respect the said Chief of Bureau and his duly appointed agents as lawful officers of the District.

4. The said Chief of Bureau and his agents are authorized to inspect any premises in the District of Columbia where it is believed there exists any contagious infectious or communicable disease among any domestic animals, and if found needful to order the temporary quarantine of said animals, to cause premises to be disinfected, and if necessary to condemn the animals to be killed in order to prevent the spread of the disease.

5. The proceedings for the appraisal of the value of animals condemned to be killed, shall be had under the provisions of sec. 8 of the regulations.

6. The Chief of Bureau aforesaid acting as veterinarian for the District, shall make to the Commissioners monthly reports of all matters relating to the subject of this order within the District of Columbia, and in addition thereto, special reports and recommendations as often as shall be needful, for the information of the Commissioners to enable them to carry into effect the provisions of the law.

REGULATIONS FOR THE SUPPRESSION AND PREVENTION OF CONTAGIOUS, INFECTIOUS AND COMMUNICABLE DISEASES AFFECTING DOMESTIC ANIMALS IN THE DISTRICT OF COLUMBIA.

OFFICE OF THE COMMISSIONERS OF THE DISTRICT OF COLUMBIA,
Washington, August 21, 1888.

Whereas the eighth section of the act of Congress approved May 29, 1884, entitled "An act for the establishment of a Bureau of Animal Industry, to prevent the exportation of diseased cattle, and to provide the means for the suppression and extirpation of pleuro-pneumonia and other contagious diseases among domestic animals," authorizes and requires the Commissioners to take measures for the prompt suppression of all contagious, infectious, and communicable diseases affecting domestic animals in the District of Columbia, to prescribe regulations for disinfection, and such other regulations as they may deem necessary to prevent infection and contagion, as provided in said section, do ordain, declare and publish the following:

Ordered: That all persons having the care or custody of any domestic animal in the District of Columbia affected or supposed to be affected with any infectious, contagious or communicable disease shall isolate and forthwith report the same to the Chief of the Bureau of Animal Industry of the Department of Agriculture, or to some officer of said Bureau in said District, designating the place where

the same may be found, and shall place the same at his disposal and observe and follow such directions as such chief or officer shall prescribe in such case.

2. That it is hereby made the duty of all veterinary surgeons in said District and sanitary inspectors of the health department of the District, and of every member of the Metropolitan police force to inquire and report upon all known or suspected cases referred to in section 1 of this order.

3. That if any person or persons having the care or custody of any domestic animal in said District affected or supposed to be affected as aforesaid, shall secrete or conceal the same or use any device to conceal the same or mislead the persons or officers who are charged with any duty in reference to such domestic animals, and all persons aiding therein, shall each suffer the penalty hereinafter prescribed.

4. That the Chief of the Bureau of Animal Industry only may cause the death of any so diseased or supposed to be diseased animal in said District upon orders oral or written from him for the death of such animal, and shall also prescribe the mode and place of such death which shall be strictly pursued in the destruction of said animal, and the bodies of such animals so killed shall be removed by the health officer of the District upon notice from said chief.

5. That every person who shall violate any of the provisions of this regulation, shall be fined in any sum not less than ten nor more than twenty-five dollars for each offense, to be enforced in the police court of the District of Columbia, in the name of the District on information, etc.

REGULATIONS GOVERNING THE COLLECTION AND DISPOSITION OF GARBAGE.

[Art. XIV, Police Regulations.]

OFFICE OF THE COMMISSIONERS OF THE DISTRICT OF COLUMBIA,
Washington, April 1, 1895.

Whereas the Commissioners of the District of Columbia were authorized by an act, approved March 2, 1895, to make necessary regulations for the collection and disposition of garbage in said District, and to annex thereto such penalties as will secure the enforcement thereof, the following regulations, to take effect May 1, 1895, are hereby promulgated for the guidance of all concerned.

It is hereby ordered that:

SECTION 1. The word garbage wherever it occurs in these regulations shall be held to mean the refuse of animal or vegetable matter which has been used or intended for food.

SEC. 2. Occupants of dwelling houses, proprietors of boarding houses, commission warehouses, hotels, restaurants and other places where garbage is accumulated, and owners or occupants of apartment or tenement houses shall provide for the use of such premises a sufficient number of water-tight metal receptacles to contain all garbage which may accumulate on said premises during the usual interval between the collections of garbage therefrom, and shall keep such receptacles at all times water-tight and in good repair. Each such receptacle shall have a tight cover provided with a handle. No person without a permit from the health officer shall use for the reception of garbage any receptacle having a capacity of less than three or more than ten gallons, nor more than one receptacle containing less than ten gallons.

SEC. 3. Occupants of any dwelling house, apartment or tenement house and each proprietor of any boarding house, commission warehouse, hotel, restaurant and other place where garbage is accumulated shall cause all garbage from his or her premises to be put into the receptacle provided for that purpose. Each person aforesaid shall cause such receptacle to be kept covered at all times and to be placed and to remain, between the hours of seven o'clock a. m. and six[1] o'clock p. m. of each day on which the collection is made from his or her premises, in such position as to be easily accessible to the garbage collector or as may be designated by the health officer. No person shall place or cause to be placed in any garbage receptacle any substance other than garbage.

SEC. 4. Owners of premises from which garbage is to be removed, having street and alley entrances, shall place conspicuously at the alley entrance thereof the street and number designations in letters and figures, respectively, not less than two inches in height, so as to be easily read.[2]

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[1] Amendment of April 22, 1895.
[2] Amendment of May 6, 1895.

SEC. 5. It shall be unlawful for any person to alter, deface, or destroy, any name f any street or number required to be displayed by these regulations.

SEC. 6. It shall be the duty of any person or persons having possession, custody r care of meat, fish, vegetables or provisions of any kind intended for sale as ood, but which has become unfit for such use, to forthwith remove such meat, sh, vegetables or provisions to such place as has been designated by the health fficer for such purpose. It shall be unlawful for any person or persons to know-ngly bring or cause to be brought into the District of Columbia any diseased, oiled or decayed meat, fish, vegetables or provisions of any kind intended for ood.

SEC. 7. No driver, owner or superintendent having charge or control of any cart r other vehicle for carrying garbage shall allow such cart or vehicle to needlessly emain, nor allow a needless number of such carts or vehicles to gather before any esidence, building or place of business within the city of Washington or the more ensely populated suburbs thereof; nor allow any such cart or vehicle or any-hing thereto appertaining to be in a condition needlessly filthy or offensive; nor llow any such cart or vehicle or implement used in connection therewith to be tored or kept in any place where needless offense is given to any person or per-ons. No driver of any such cart or vehicle shall occupy an unreasonable length f time in loading or unloading such cart or vehicle or in passing along any alley, treet, avenue or public road; nor allow the lid or cover of such cart or vehicle to e otherwise than securely closed except as may be necessary for the loading or nloading and cleaning of such cart or vehicle.

SEC. 8. No person other than the owner or authorized collector shall interfere with or disturb any garbage after it shall have been put in a garbage receptacle and placed in an accessible place for collection; nor shall any unauthorized person molest, hinder, delay, or in any other manner interfere with any garbage collector in the discharge of his duty.

SEC. 9. No person or persons other than such as hold permits from the health officer shall haul any garbage through or over any street, alley or avenue in the city of Washington or its more densely populated suburbs, and each cart or other vehicle used for such purpose shall have the word "garbage" and the number of the permit in large white letters on a black ground plainly painted or attached to each side of the wagon bed. No cart or other vehicle shall be used for the collection of garbage except such as are water-tight and provided with tight-fitting covers and such as have been approved by the health officer.

SEC. 10. Any person violating any of the provisions of these regulations shall, on conviction thereof in the police court, be punished by a fine of not less than one nor more than fifty dollars for each and every offense, and in default of payment of such fine, shall be imprisoned in the workhouse of the District of Columbia for not more than thirty days.

REGULATIONS CONCERNING THE FORM OF APPLICATION FOR REGISTRATION AND PERMISSION TO COMMENCE OR TO CONTINUE BUSINESS, AND THE EVIDENCE TO BE ADDUCED IN SUPPORT THEREOF, FOR MEDICAL AND DENTAL COLLEGES NOT INCORPORATED BY SPECIAL ACTS OF CONGRESS.

OFFICE COMMISSIONERS OF THE DISTRICT OF COLUMBIA,
Washington, D. C., July 31, 1896.

Ordered: In compliance with the requirements of the act entitled "An act to provide for the incorporation and regulation of medical and dental colleges in the District of Columbia," approved May 4, 1896, the following regulations are promulgated concerning the form of application for registration and a permit to commence or continue business, and the evidence to be adduced in support thereof, required by said act to be made and adduced by the officers of each medical or dental college not incorporated by special act of Congress, desiring to commence or to continue business in said District:

1. Application shall be made in writing, in ink; shall be signed by the president and secretary of the board of trustees of the college for which registration and a permit is asked, and must be accompanied by a certified copy of the articles of incorporation of such college; or, if such college has not yet been incorporated, shall be signed by each of the proposed incorporators and accompanied by a copy of the proposed articles of incorporation.

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[1]Amendment of June 9, 1896.

2. Each application shall state the amount of capital stock of the college and the amount of such stock paid in, or otherwise show the financial responsibility of the organization.

3. Each application shall state whether a permit is desired to commence or to continue business.

4. Each application shall state at length—

A. The conditions required of applicants prior to admission to courses of study.

B. The branches of medical science which are, or are to be, included in the course of instruction, with a statement of the time allotted to each branch, and the name of the person or persons who are to instruct in it.

C. The minimum requirements of each student prior to the issue of a diploma or certificate of attendance to him, specifying in detail as to attendance upon lectures, quizzes, examinations, laboratory work, and clinical instruction.

D. The facilities for instruction. Under this head should be given at length a statement as to—

(*a*) The names of those connected, or to be connected, with the college in the capacity of professors, instructors, demonstrators, etc.; the names and locations of each medical college which has conferred upon any such person any degree or any certificate of attendance upon lectures in medicine, and the date and character of such degree or certificate; the names and locations of each hospital or dispensary with which any such person has been connected, stating those with which he is connected at the present time.

(*b*) The location of the premises which are intended to be used for college purposes.

(*c*) The facilities for practical instruction in anatomy, chemistry, histology, pathology, bacteriology, and the facilities for clinical instruction in medicine, surgery, obstetrics, and similar branches.

Application for registration and a permit to continue business shall state, in addition to the foregoing:

5. The name of each graduate who has received a degree, and the date and character of such degree; the time spent by such graduate as a student at the college making application; the time spent by each such graduate at other medical colleges prior to obtaining such degree; the names of such other medical colleges, the time of attendance, and whether such attendance was attested by a certificate from such college, or otherwise.

6. The names of other colleges, so far as may be known, which have recognized degrees or certificates of attendance issued by the college making application.

7. Application having been duly executed in accordance with the above requirements, must be accompanied by the affidavits of those signing such application, that the statements contained therein are true to the best of their knowledge and belief.

REGULATIONS CONCERNING THE USE AND OCCUPANCY OF BUILDINGS AND GROUNDS.

OFFICE COMMISSIONERS OF THE DISTRICT OF COLUMBIA,
Washington, April 22, 1897.

Ordered: That pursuant to the "Joint resolution to regulate licenses to proprietors of theaters in the city of Washington, District of Columbia, and for other purposes," the following regulations concerning the use and occupancy of buildings and grounds in the District of Columbia are hereby made:

1. That it shall be and is hereby made the duty of the owner of any premises or building, situated in the District of Columbia, to provide and furnish such premises and building with adequate facilities for heating, ventilating and lighting the same, and with proper and sufficient water closets or privies; to keep the roof thereof tight and in good repair; and to cause the yard or area, or both, to be so graded and paved that all drainage shall flow freely from all parts of it into such sewer traps as may have been provided for that purpose, or if there be none, shall flow away from any inhabited building on such premises.

2. That it shall be the duty of every person occupying any premises, or any part of any premises, in the District of Columbia, or if such premises be not occupied, of the owner thereof, to keep such premises or part, and all buildings, yards, stables, grounds and outhouses connected therewith, clean and wholesome; if, upon inspection by the health officer or an inspector of the health department it be ascertained that any such premises, or any part thereof, or any building, yard, stable, grounds, alley, or outhouse connected therewith is not in such condition as herein required, the occupant or occupants of such premises or part, or the owner thereof, as hereinbefore specified, shall be notified thereof and required to place the same in a clean and wholesome condition; and in case any person shall fail or

neglect to place said premises or part in such condition within the time allowed by said notice he shall be liable to the penalties hereinafter provided.

3. That no person being the owner, proprietor, lessee, manager or superintendent of any store, factory, workshop, or other structure or place of employment where workmen or workwomen are employed for wages, shall cause, permit, or allow the same, or any portion or apartment thereof, or any room therein to be overcrowded or inadequate, faulty or insufficient in respect of lighting, heating or ventilation. Every such store, factory, workshop or place shall be kept in a clean and wholesome condition, and, as far as practicable, free from all gases, vapors, dust or other impurities generated by manufacturing processes or otherwise, and injurious to health. Sufficient and separate urinals and privies shall be provided for male and female employees.

4. That no person shall, in the District of Columbia, use any building for any purpose for which it has not been lawfully used for a period of thirty days, at least, immediately preceding the promulgation of these regulations, unless said building is located and constructed in accordance with the requirements of the laws, building regulations and health ordinances in force in this District, governing the location and construction of buildings intended to be used for such purposes.

5. That no room in any tenement or lodging house shall be occupied as a sleeping room unless there are at least four hundred feet cubic contents for each person therein not less than ten years of age. The health officer is hereby authorized, if in his judgment it is necessary to secure compliance with this requirement, to cause to be affixed to or near the door of each such room, a placard stating the number of occupants allowed under this regulation, and shall, in any case where such placard has been affixed, cause a notice stating such number to be served on the owner, agent, or person having charge of the premises. No person having authority to prevent shall permit to occupy any such room as a sleeping room any greater number of persons than are specified on such placard, if any, or otherwise authorized under this section.

6. That it shall be the duty of the owner or owners of every tenement or lodging house to provide a suitable place or places in connection therewith for the reception of garbage and other refuse matter.

7. That whenever there shall be more than five families residing in any tenement house in which the owner does not reside, there shall be placed therein by the owner or owners, lessee or lessees thereof, when required by the Commissioners of the District of Columbia, a janitor, housekeeper, or some other responsible person who shall reside in said house and have charge thereof.

8. That no person shall use any tenement or lodging house or any portion thereof, as a place of storage for any combustible article, or any article dangerous or detrimental to health.

9. That no old rags, paper, or other like refuse material, gathered or recovered from any source shall be brought into or allowed to remain within any building used as a dwelling.

10. That the health officer shall examine or cause to be examined any building supposed or reported to be in an unsanitary condition, and make a record of such examination; of the location of the building; the purposes for which it is used, and the names of the owner and lessee and occupant. If after such examination, he shall deem any structure or building, or part thereof, or appurtenance thereto in such condition as to endanger the health of the inmates thereof, or of those living in the vicinity, he shall serve upon the occupants a notice requiring a vacation of said structure or building, and also serve or cause to be served a notice in writing upon the owner, agent, or other party having interest in said structure, requiring the same to be put in proper condition within such time as he may direct; and it shall thereupon be the duty of said interested party or parties to comply with and execute the order of the health officer under the penalties for failure as provided by section twelve of these regulations, unless an appeal be taken as hereinafter provided. Upon deposit of thirty dollars to cover fees for an examining commission, the interested party may appeal within forty-eight hours in writing to the Commissioners of the District, who shall appoint a commission to determine the question at issue; said commission shall consist of two disinterested and competent physicians and one architect, residents of the District, who shall be paid for their services not exceeding ten dollars each upon the certificate of the health officer. In case of a decision adverse to the appellant, it shall be the duty of the appellant to comply therewith when duly notified thereof in writing by the health officer.

11. That the term "tenement" wherever used in these regulations, shall be held to mean any building or portion thereof which is occupied or is intended for occupation as the residence of more than two families living independently of one another and doing their cooking upon the premises; and the term "lodging houes,"

wherever used in these regulations, shall be held to mean any building or portion thereof in which persons are lodged for hire for less than a week at one time.

12. That any person violating, or aiding or abetting in violating any of the provisions of these regulations, or interfering with, or preventing any inspection authorized thereby, shall be deemed guilty of a misdemeanor, and shall, upon conviction in the police court, be punished by a fine of not more than one hundred dollars, or by imprisonment in the workhouse for not more than ninety days, or by both such fine and imprisonment, in the discretion of the court.

REGULATIONS FOR THE GOVERNMENT OF DAIRIES AND DAIRY FARMS.

OFFICE COMMISSIONERS OF THE DISTRICT OF COLUMBIA.
Washington, July 31, 1897.

Ordered: That the following regulations made by the health officer of the District of Columbia, pursuant to the requirements of section 11 of "An act to regulate the sale of milk in the District of Columbia, and for other purposes," approved March 2, 1895, in lieu of the regulations on the same subject made and approved June 26, 1895, are hereby approved:

SECTION 1. No building or space shall be used for dairy purposes which is not well lighted and ventilated, which is not provided with a suitable floor; and, if such room or space be a cellar or subcellar, or be located in a cellar or subcellar, which is not properly concreted, guttered and drained.

SEC. 2. No dairy shall be located or maintained within any kitchen, wash room, work shop or inhabited room, nor in proximity to any water-closet, privy, cesspool or urinal, nor in any room or space which is not of such size and construction as to permit the entire separation of all milk and milk products, both in the process of handling and storing the same, from all probable sources of contamination, either by dirt, noxious gases, infective organisms or substances or anything liable to alter unnecessarily the quality of such milk or milk products.

SEC. 3. Every person maintaining a dairy shall provide for the use thereof, and shall use, a sufficient number of receptacles, made of nonabsorbent material, for the reception, storage and delivery of milk, and shall cause them to be kept clean and wholesome at all times; and having delivered any such receptacle to a consumer shall not again use the same for the reception, storage or delivery of milk or cream in any form until it has been, to his personal knowledge, properly cleaned after such use.

SEC. 4. Every person maintaining a dairy shall provide for the use thereof a supply of pure and suitable water, sufficient for the proper washing of all cans, bottles and appliances.

SEC. 5. Every person maintaining a dairy shall keep the same and all appurtenances thereto clean and wholesome at all times, and shall change the water in the coolers at least once each day.

SEC. 6. No building shall be used for stabling cows for dairy purposes which is not well lighted, ventilated, drained and constructed, or which is not provided with stalls or with proper stanchions for anchoring the cows so arranged as to allow not less than three and one-half feet width of space for each milch cow; or which is not provided with good and sufficient facilities for feeding the animals in a cleanly manner; or which contains less than six hundred cubic feet clear space for each cow, unless the use of such building for stabling cows for dairy purposes has been authorized prior to the promulgation of these regulations, in which case it shall contain not less than five hundred cubic feet clear air space for each cow.

SEC. 7. No room shall be used for stabling cows for dairy purposes which contains any water-closet, privy, cesspool, urinal or manure pit; nor shall any fowl, hog, horse, sheep or goat be kept in any room used therefor.

SEC. 8. Every person using any premises for keeping cows for dairy purposes shall, when so directed by the health officer, erect and maintain in the stable, stall, shed or yard connected therewith one or more proper receptacles for drinking water for such cows, and shall keep the same supplied with clean, fresh water and none other.

SEC. 9. Every person using any premises for keeping cows for dairy purposes shall keep the entire premises clean and in good repair, and the buildings well painted or whitewashed.

SEC. 10. Every person using any premises for keeping cows for dairy purposes shall cause the dung to be removed from the stables at least twice daily, and always within one hour preceding every milking of the cows; and shall not allow any

accumulation of dung within the building occupied by the cows, but shall, whenever in the opinion of the health officer it is required by local conditions and surroundings, provide temporary storage for the same and for other refuse in a separate place, which shall be covered, and which, when so ordered by said health officer, shall be a water-tight receptacle.

SEC. 11. Every person keeping cows for dairy purposes within the city of Washington or its more densely populated suburbs, or elsewhere in the District of Columbia, if, in the opinion of the health officer, local conditions require it, shall cause the inclosure in which such cows are kept to be graded and drained so as to keep the surface reasonably dry and to prevent the accumulation of water therein, except as may be permitted for the purpose of supplying drinking water; and shall not permit any garbage, urine, fecal matter or similar substance to be placed or to remain in such inclosure, nor any open drain to run through it.

SEC. 12. Every person keeping cows for the production of milk for sale shall cause them to be kept clean and wholesome at all times, and shall cause the teats, and, if necessary, the udder, to be carefully cleaned by brushing, washing or wiping before milking, and shall cause each such cow to be properly fed and watered.

SEC. 13. Any person using any premises for keeping cows for dairy purposes shall provide and use a sufficient number of receptacles, of nonabsorbent material, for the reception, storage and delivery of milk, and shall keep them clean and wholesome at all times, and at milking time shall remove each receptacle, as soon as filled, from the stable or room in which the cows are kept; nor shall any milk or cream be stored or kept within any room used for stabling cows or other domestic animals.

SEC. 14. It shall be the duty of every person having charge or control of any premises upon which cows are kept to notify the health officer of the District of Columbia of the existence of any contagious or infectious disease among such cows, by letter delivered or mailed, within twenty-four hours after the discovery thereof, and to thoroughly isolate any cow or cows so diseased or which may reasonably be believed to be infected, and to exercise such other precautions as may be directed, in writing, by said health officer.

SEC. 15. Milkers and those engaged in the handling of milk or cream shall maintain strict cleanliness of their hands and persons while milking or while so engaged. It shall be the duty of every person holding a permit to maintain a dairy or dairy farm to enforce this regulation in reference to such persons as may assist them in the maintenance thereof.

SEC. 16. That any person violating any of the foregoing regulations shall, on conviction thereof in the police court, be punished by a fine of not more than ten dollars for each and every such offense, to be collected as other fines and penalties are collected.

SEC. 17. That the regulations for the government of dairies and dairy farms in the District of Columbia, promulgated June 26, 1895, are hereby repealed.

APPENDIX E.

LIST OF PHYSICIANS ENTITLED TO PRACTICE IN THE DISTRICT OF COLUMBIA, JUNE 30, 1897.

Name.	Address.
Abbott, Griffith E.	2411 Fourteenth st. NW
Acker, George N.	913 Sixteenth st. NW.
Adams, Arthur C.	619 Massachusetts ave. NE.
Adams, Clarence B. S	422 Eighth st. SE.
Adams, J. Lee	Takoma Park, D. C.
Adams, James O.	937 N st. NW.
Adams, Samuel S.	1 Dupont circle.
Ainsworth, F. C.	Record and Pension Div., War Dept.
Alderman, Ashael H.	Langdon, D. C.
Alderman, Zenas W.	232 New Jersey ave.
Alleger, Walter W.	906 S st. NW.
Allen, Charles	1320 G st. NW.
Allen, Charles L.	908 Fifteenth st. NW.
Allen, Elijah H.	210 L st. NW.
Allen, H. Jerome	421 H st. NE.
Allen, Jacob S	666 G st. NE.
Anderson, Joseph W.	1911 Eleventh st. NW.
Appleby, James F. R.	1430 Thirty-third st. NW.
Armstrong, Wm. J.	1306 Lydecker ave.
Arnold, John S	24 Second st. NE.
Arwine, James T.	716 Four-and-a-half st. SW.
Ashford, Bailey K.	
Atkinson, Wade H.	707 Twelfth st. NW.
Atwood, Oliver M.	1528 L st. NW.
Ayres, William W.	1730 Q st. NW.
Babbitt, Zeno B.	810 Eleventh st. NW.
Bailey, Grafton D. P.	223 Four-and-a-half st. NW.
Bailey, Henry L.	1924 Eleventh st. NW.
Baker, Frank	1804 Columbia road.
Baker, Leigh Y.	916 Fourteenth st. NW.
Baker, May D.	1434 S st. NW.
Baker, Robert W.	816 Seventeenth st. NW.
Baker, Willie W.	916 S st. NW.
Baldus, William T.	2144 Pennsylvania ave. NW.
Baldwin, Aaron	1205 Eleventh st. NW.
Baldwin, Mosby	1002 Rhode Island ave.
Ball, Charles A.	233 G st. NW.
Balloch, Edward A.	1218 Twelfth st. NW.
Banes, Hiram J.	119 E st. NW.
Barber, James M.	918 E st. NW.
Barbour, Frank A.	1327 Twelfth st. NE.
Barker, Howard H.	1116 H st. NW.
Barnes, Noble P.	611 Maryland ave. NE.
Barrie, George	1029 Fourteenth st. NW.
Barrington, Richard L.	3514 N st. NW.
Barry, Edmund	20 R st. NE.
Barry, John P.	1246 H st. NE.
Barstow, Edward C.	712 East Capitol st.
Barstow, Kate D.	712 East Capitol st.
Barton, Wilfred M.	336 B st. NE.
Battle, Lewis J.	300 Indiana ave.
Bayne, John W.	116 Second st. SE.
Beall, Benjamin M.	800 Fifth st. NE.
Beattie, Wray	910 East Capitol st.
Beatty, Louis Kelley.	610 East Capitol st.
Beatty, Walter K.	610 East Capitol st.
Beckett, George M.	1911 Sixth st. NW.
Beckley, E. R.	Howard University.
Beebe, William B.	813 Eleventh st. NW.
Behrend, Adajah	1214 K st. NW.
Behrend, Edwin B.	1214 K st. NW.
Belt, Edward O.	The Albany, Seventeenth and H sts. NW.
Bennett, Harrison M.	Takoma Park, D. C.
Bennett, Maitland C.	1728 Eighth st. NW.
Bennit, William W.	1423 S st. NW.
Benson, Elbert G.	1302 Maryland ave. NE.
Beresford, Galsworthy G.	936 F st. NW.
Bermann, Isidor	1010 I st. NW.
Bevard, William A.	1313 Fourteenth st. NW.
Bevier, William D.	1420 Eleventh st. NW.
Billard, Jules F.	Laurel, Md.
Bird, James C.	812 Eighth st. NE.
Birdsall, Charles W.	1256 Thirty-first st. NW.
Bishop, Francis B.	1913 I st. NW.
Blackburn, Isaac W.	Government Hospital for the Insane.
Blake, Louisa M.	237 Eighth st. NE.
Bliss, Charles L.	1106 New York ave.
Bliss, James E.	604 H st. NE.
Boarman, Charles V.	1104 Maryland ave. SW.
Bogan, Fred. Macon	421 G st. NW.
Bogan, Samuel W.	421 G st. NW.
Bond, Samuel S.	818 New Jersey ave. NW.
Bonebrake, James H.	917 Third st. NW.
Boss, Rufus D.	307 East Capitol st.
Boswell, Archie W.	1239 H st. NE.
Boteler, William C.	817 Fifteenth st. NW.
Bovee, J. Wesley	1404 H st. NW.
Bowen, Charles H.	607 Massachusetts ave. NW.
Bowen, William S.	1228 Sixteenth st. NW.
Boyd, George W.	121 Second st. NE.
Boyle, Frank C.	1939 Ninth st. NW.
Brackett, John E.	1310 Rhode Island ave.
Braden, Francis W.	719 East Capitol st.
Bradfield, Jefferson D.	1533 North Capitol st.
Branson, Joseph H.	1231 New Jersey ave. NW.
Brayshaw, J. Lacey	Baltimore, Md.
Bromwell, Josiah R.	1147 Connecticut ave. NW.
Bronson, Charles E.	2434 Pennsylvania ave. NW.
Brooks, Floyd V.	465 Florida ave. NW.
Brooks, J. Henry	Brookland, D. C.
Brooks, John D.	Brookland, D. C.
Brooks, Phil. B.	320 Third st. SW.
Brosius, Mary Alice	1101 K st. NW.
Brown, Charles W.	902 Fourteenth st. NW.
Brown, Robert W.	1224 R st. NW.
Bruckheimer, Moses	617 Sixth st. NW.
Brumbaugh, Gaius M.	904 Massachusetts ave. NW.
Brummett, Randolph B.	108 Fifth st. NE.

List of physicians entitled to practice in the District of Columbia, June 30, 1897—Continued.

Name.	Address.
Bruner, James F	647 East Capitol st.
Bryan, Joseph H	818 Seventeenth st. NW.
Bulkley, John W	1723 N st. NW.
Bunnemeyer, Bernard	1433 U st. NW.
Burch, W. Thompson	1625 Fourteenth st. NW.
Burke, Francis E	450 K st. NW.
Burke, Thomas W	800 L st. NW.
Burnett, Swan M	916 Farragut square.
Burritt, Alice	1129 Fourteenth st. NW.
Burton, George C	810 H st. NE.
Burwell, John P	904 Fourteenth st. NW.
Busey, Samuel C	1545 I st. NW.
Butler, William K	1207 M st. NW.
Byrne, Patrick J	234 N st. NW.
Byrne, Walter C	25 Iowa circle.
Byrns, William F	35 B st. SE.
Cabaniss, George W	1906 K st. NW.
Caldwell, Charles T	949 S st. NW.
Caldwell, William A	814 I st. N. W.
Callan, Cornelius V. N	1422 F st. NW.
Calvert, Finley H	1009 Thirteenth st. NW.
Cameron, Malcolm	1027 Twenty-second st. NW.
Camp, Herbert M	Takoma Park, D. C.
Campbell, Charles B	404 M st. NW.
Campbell, Thomas B	1102 Fourteenth st. NW.
Cannon, Walter D	Fredonia Hotel.
Capehart, Baldy A	1814 H st. NW.
Cardozo, Francis J	301 Second st. SW.
Carlisle, George M	229 Indiana ave.
Carman, Louis D	1351 Q st. NW.
Carmichael, Randolph B.	723 Eighteenth st. NW.
Carr, William P	1418 L st. NW.
Carraher, John V	812 E st. SE.
Carroll, James	Army Medical Museum.
Carroll, James J	1322 Thirteenth st. NW.
Carroll, Robert L	948 R st. NW.
Carter, Durus D	1202 Q st. NW.
Carter, Marion B	1120 Ninth st. NW.
Chadwick, De Witt C	61 I st. NW.
Chamberlin, Frank T	226 New Jersey ave. SE.
Chapman, Nathaniel	1212 K st. NW.
Chappell, John W	Tennallytown, D. C.
Charles, Francis M	1206 Q st. NW.
Chew, Thomas I	226 E. Capitol st.
Childs, Creed W	513 Third st. SW.
Choate, Rufus	3267 O st. NW.
Church, James R	1407 New York ave.
Clark, George C	321 East Capitol st.
Clark, James J	Brightwood, D. C.
Clark, Taliaferro	1309 H st. N. W.
Claytor, Thomas A	5 Dupont circle
Clemens, James E	714 Thirteenth st. NW.
Clemons, Phineas H	629 Florida ave. NE.
Coblentz, Horace B	467 Florida ave. NW.
Coe, Anton	1110 F st. NW.
Coffron, Willard H	5 Tennessee ave. NE.
Cole, Arthur B	1541 M st.
Cole, George R. L	424 Seventh st. SW.
Cole, John T	907 H st. NE.
Coleman, Horace	1107 Massachusetts ave. NW.
Collins, Albert R	468 E st. SW.
Collins, Charles R	1125 Fourteenth st. NW.
Collins, Edward J	823 Eleventh st. NE.
Collins, John F	1305 Third st. NW.
Compton, William P	The Albany.
Connell, George E	3230 N st. NW.
Conner, William H	1130 Twenty-second st. NW.
Cook, George W	3 Thomas circle.
Cooke, Robert R	Washington, Fayette County, Ohio.
Coolidge, Augustus B.	1113 G st. NW.
Corbin, William E	1005 Twenty-third st. NW.
Corey, George B	Howard University.
Corey, Waterman F	1305 R st. NW.
Cornish, Mabel	225 First st. SE.
Coumbe, Arthur G	1312 Ninth st. NW.
Coumbe, Oscar H	1312 Ninth st. NW.
Cowden, J. Morrow	715 Thirteenth st. NW.
Cox, S. Clifford	Hyattsville, Md.
Crittenden, Thomas B.	928 New York ave. NW.
Crook, Harrison	918 Fourteenth st. NW.
Crosson, Henry J	819 Nineteenth st. NW.
Crowe, John W	2805 M st. NW.
Crush, Alice S	712 Eighth st. NW.
Cursor, Collin B	1331 Twenty-eighth st. NW.
Cummiskey, Edw. F	441 Seventh st. SW.
Currier, George R	3320 Thirteenth st. NW.
Custis, George W. N	112 East Capitol st.
Custis, J. B. Gregg	110 East Capitol st.
Custis, Marvin A	634 East Capitol st.
Cuthbert, Middleton F.	1462 Rhode Island ave.
Czarra, Sigmund A	619 Pennsylvania ave. NW.
Danforth, Roderick F.	919 Twelfth st. NW.
Daniel, Robert A	715 Fifth st. NW.
Daniels, Uriah J	2025 L st. NW.
Darby, John J	311 A st. NE.
Darling, Henry	Brightwood, D. C.
Darrah, Austin A	9 Eleventh st. NE.
Davidson, Edward Y	154 E st. NE.
Davidson, Falconer	204 Pennsylvania ave. SE.
Davis, Carrie E	1434 S st. NW.
Davis, Charles A	1010 Fifteenth st.
Davis, Llewellyn F	1108 New York ave.
Davison, Joseph C	1321 G st. NW.
Dawson, Charles F	1118 Virginia ave. SW.
Day, Geo. Frank	915 N st. NW.
Deale, Henry B	1224 Fourteenth st. NW.
De Carré, Alfred	Brightwood, D. C.
Deeble, Horace M	602 M st. NW.
Demarest, Cornelius L	644 East Capitol st.
Dennison, Ira W	1326 L. st. NW.
Devereux, J. Ryan	1724 S st. NW.
Dillenbach, William J	1340 R st. NW.
Dixon, Henry M	2149 Pennsylvania ave. NW.
Dobson, Hervie A	100 Eleventh st. NE.
Dobson, William H	100 Eleventh st. NE.
Dolan, Patrick V	1408 Eleventh st. NW.
Donohue, Florence	1134 Eighth st. NW.
Dooley, Francis X	1627 Fourteenth st. NW.
Dorsey, John S	1415 P st. NW.
Douglas, Alanson S	631 G st. NE.
Douglas, James F	19 Fifth st. NE.
Douglas, Robert	936 F st. NW.
Drane, Frank C	Takoma Park, D. C.
Drawbaugh, John A	18 Sixth st. SE.
Drenford, George	Catholic University, Baltimore, Md.
Drury, George A	605 Florida ave. NW.
Du Bose, George P	2903 Q st. NW.
Duffey, Hugh C	1251 Ninth st. NW.
Dufour, Clarence R	1016 Fourteenth st. NW.
Dulaney, Joshua L	926 I st. NW.
Dumas, Michel O	1234 Fourth st. NW.
Dunn, Henry A	901 U st. NW.
Dye, Hobart S	1400 K st. NW.
Dyrenforth, Robert G.	1503 Rhode Island ave. NW.
Eaton, Parley H	1318 T st. NW.
Eddy, Otis J	1215 Rhode Island ave.
Edmonston, Raphael A	521 Third st. NW.
Eggleston, James D	626 Ninth st. NE.
Egleston, George W	NE. cor. First st. and New York ave. NW.

List of physicians entitled to practice in the District of Columbia, June 30, 1897—Continued.

Name.	Address.
Elgin, William F	Bethesda, Md.
Eliot, J. Llewellyn	1106 P st. NW.
Eliot, Johnson	1417 N st. NW.
Elliott, Charles S	325 East Capitol st.
Elliott, Henry R	1826 N st. NW.
Ellis, Hannah C	1113 G st. NW.
Elliott, Jerre B	1804 G st. NW.
Ellis, Joseph C	1113 G st. NW.
Ellyson, Robert M	1535 Eighth st. NW.
Emmons, Charles Mc	3033 Fifteenth st. NW.
English, Charles H	1107 G st. NW.
Erbach, Amelie	122 Third st. SE.
Eslin, James T	901 S st. NW.
Evans, Albert W	1221 Eleventh st. NW.
Evans, Warwick	1105 Ninth st. NW.
Evans, Wilson B	1926 Twelfth st. NW.
Eversfield, Wm. O	College Park, Md.
Ezdorf, Rudolph H. von	918 N st. NW.
Fadeley, George B	921 F st. NW.
Falconer, Bolivar L	1509 Rhode Island ave. NW.
Fales, Warren D	915 L st. NW.
Farly, James M	907 N st. NW.
Featherstonhaugh, Thomas.	210 Delaware ave. NE.
Fenwick, George P	504 Sixth st. SW.
Ferguson, Charles E	413 L st. NW.
Ferguson, Thomas M	2224 Sixth st. NW.
Filler, Charles W	1708 Q st. NW.
Finley, Clara B	1339 T st. NW.
Fishblat, Albert S	Oxford Hotel.
Fisher, George W	112 Jackson st., Anacostia, D. C.
Ford, J. Herbert	314 Second st. SE.
Ford, William C	928 New York ave. NW.
Foster, George W	Government Hospital for Insane.
Foster, Romulus A	2029 Q st. NW.
Foster, Warren W	1313 Fourteenth st. NW.
Fowler, Ernest W	404 M st. NW.
Fowler, William C	1141 Fifth st. NW.
Fox, George L	121 Sixth st. NE.
Fox, William H	1826 Jefferson place.
Francis, John R	2112 Pennsylvania ave.
Frankland, W. Ashby	916 Eighth st. NW.
Franzoni, Charles W	605 I st. NW.
Freer, James A	1523 I st. NW.
Freeze, Harris H	510 Seventh st. NE.
French, Leigh H	825 Vermont ave.
French, William B	506 East Capitol st.
Friederich, Leon L	329 East Capitol st.
Frost, Ellis F	513 Sixth street NW.
Frost, John W	1841 G st. NW.
Fry, Henry D	1133 Fourteenth st. NW.
Gaines, Richard L	2243 Brightwood ave.
Gallagher, Matilda J	112 Fourth st. SE.
Gallagher, Michael F	900 K st. NW.
Gallagher, Patrick J	321 Fifth st. SE.
Gardner, Franklin A	1018 Fourteenth st. NW.
Garrison, Fielding A	1427 R st. NW.
Garthwaite, Isaac S	467 Florida ave. NW.
Garvin, Mary J	Hotel La Fetra.
Gatchell, William F	604 E st. NE.
Geddes, William	1719 G st. NW.
Gehring, Gustave P	623 F st. NW.
Gentsch, Daniel C	226 I st. NW.
Gibbs, Benjamin F	2934 Fourteenth st. NW.
Gibbs, Edwin A	1608 Thirteenth st. NW.
Gibbs, Thomas F	935 Rhode Island ave.
Gilbert, Charles B	1403 H st. NW.
Gilbert, C. Evelyn	455 Missouri ave. NW.
Gill, William T	505 O st. NW.
Gillette, Hubbard	Corner Thirteenth and V sts. NW.
Gilliland, Orange C	622 Eleventh st. NE.
Gladmon, Edwin	248 Delaware ave. NE.
Glazebrook, Larkin W	2022 P st. NW.
Gleeson, James K. P	1316 R st. NW.
Gobrecht, William H	905 M st. NW.
Godding, William W	Government Hospital for the Insane.
Godfrey, Carlos E	728 Fourth st. SE.
Godfrey, George M	Indian Head, Md.
Goines, William H	506 P st. NW.
Goldsborough, Edmund K.	1331 K st. NW.
Goodall, Henry S	Charlemont, Mass.
Goodman, William R	1219 Tenth st. NW.
Gosling, Henry L	3209 Seventeenth st. NW.
Gracy, George W	1477 Kenesaw ave.
Graham, Neil F	909 New York ave.
Graham, Robert H	303 H st. NW.
Graham, James F	611 Whitney ave.
Grandfield, Charles P	1951 Harewood ave. NW.
Gray, Clarence A	622 O st. NW.
Greene, Lawrence M	2018 Second st. NW.
Greenleaf, Harry S	1330 Thirtieth st. NW.
Griffin, Thomas A	320 C st. SE.
Griffith, Michael J	656 L st. NE.
Griffith, Monte	2006 Fourteenth st. NW.
Grinder, George W	923 Ninth st. NW.
Groce, Henry R	823 Sixth st. NE.
Groce, S. Marie	823 Sixth st. NE.
Groot, Simon I	924 New York ave.
Gruel, Louis T	Twelfth and F streets NW.
Grunwell, Alfred G	1515 Thirtieth st. NW.
Guss, Harry T	1406 Binney st. NW.
Gwynn, Oscar J	1118 New Hamsphire ave.
Hagner, Charles E	1744 M st. NW.
Hagner, Francis R	1744 M st. NW.
Hall, Arthur J	811 Thirteenth st. NW.
Hall, J. Mitchell	1512 L st. NW.
Hall, Julia R	Howard University.
Hall, W. R	1520 Connecticut ave.
Hamilton, James R	1327 Q st. NW.
Hamilton, Richard T	2358 Sixth st. NW.
Hammett, Charles M	644 F st. SW.
Hammett, Chas. M., jr	1328 New York ave. NW.
Hammond, Thos. V	1713 H st. NW.
Hammond, William A	Thirteenth and Princeton sts.
Hance, Theodore F	Pension Office.
Hancock, Eugene Thos	713 Fourteenth st. NW.
Handy, William E	218 Second st. SE.
Hannon, Samuel L	1237 Tenth st. NW.
Hansmann, Theodore	1310 I st. NW.
Hardesty, Joseph R. L	1733 Riggs place NW.
Harding, Gena R	The Shoreham.
Harding, Harry T	2650 Fourteenth st. NW.
Hardin, B. L	916 Fourteenth st. NW.
Harmer, James B	1314 F st. NW.
Harrison, Charles S	1916 Eleventh st. NW.
Harrison, George B	1223 Connecticut ave.
Harrison, Herbert A	Homeopathic Hospital, Second and N sts.
Harrison, James S	907 H st. NW.
Harrison, John S	200 Monroe st., Anacostia, D. C.
Harrison, Julia C	The Cairo.
Hart, James W	518 B st. NE.
Hartsock, Fred'k M	Garfield Memorial Hospital.
Harvey, Heber McK	610 B st NE.
Harvey, Levin A	1142 Seventh st. NW.
Hasbrouck, Edwin M	3025 Fourteenth st.
Haskins, Henry W	1622 Vermont ave. NW.
Haslup, Isabelle	639 Maryland ave. NE.
Havener, George C	Anacostia, D. C.
Hawkes, William H	734 Seventeenth st. NW.
Hawxhurst, Howard H	1333 L st. NW.

List of physicians entitled to practice in the District of Columbia, June 30, 1897—Continued.

Name.	Address.	Name.	Address.
Hayes, Henry L	113 First st. NE. or 1416 Rhode Island ave.	Johnson, Albert E	117 B st. SE.
Hayes, J. Robert	46 C st. NE.	Johnson, Charles R	1224 Thirteenth st. NW.
Haynes, Henry M	1347 Q st. NW.	Johnson, Frank G	1219 Maryland ave. NE.
Hazen, David H	407 Sixth st. SW.	Johnson, Henry A	1334 Eighth st. NW.
Hazen, William P. C	511 East Capitol st.	Johnson, Henry L. E	1402 L st. NW.
Heiberger, Ida J	722 Eighteenth st. NW.	Johnson, J. Russell	1205 Q st. NW.
Heinecke, George B	804 Eleventh st. NW.	Johnson, John N	1217 Linden st. NE.
Heiser, William H	1108 H st. NE.	Johnson, Joseph Taber	1728 K st.
Heitmuller, George H	1309 Fourteenth st. NW.	Johnson, Lincoln	1208 K st. NW.
Heller, Joseph M	Garfield Memorial Hospital.	Johnson, Louis A	709 C st. SW.
Helton, Addison S	252 Ninth st. NE.	Johnson, Sidney L	819 New Jersey ave. NW.
Henderson, George	817 T st. NW.	Johnson, Wallace	926 Seventeenth st. NW.
Hensley, James T	405 Ninth st. NE.	Johnston, Gabriel F	1762 N st. NW.
Hepburn, James H	1101 F st. NW.	Johnston, George W	1437 L st. NW.
Herbert, James W	824 D st. SE.	Johnston, William W	1603 K st. NW.
Herbert, Joseph W	205 H st. NW.	Johnstone, Robert B	Sixth and D sts. NW.
Herdliska, Charles V	505 Second st. SE.	Jolley, Bushrod B	1909 Vermont ave.
Heron, George H	1016 Ninth st. NW.	Jones, Daniel W	513 Second st. NW.
Heron, William H	1016 Ninth st. NW.	Jones, Eugene	2816 P st. NW.
Hickling, D. Percy	232 Third st. NW.	Jones, John E	1213 O st. NW.
Higgins, Raymond P	Homeopathic Hospital, Second and N sts.	Jordan, Arthur	2026 H st. NW.
Hill, Richard S	Marlboro, Md.	Jordan, Charles M	604 Eleventh st. NW.
Hislop, Margaret	1021 Vermont ave. NW.	Jordan, Llewellyn	2026 H st. NW.
Hodge, Edwin R	1920 H st. NW.	Jouy, Joseph	2218 Pennsylvania ave.
Hodges, J. Walter	201 Second st. SE.	Julihn, Magnus L	1423 Fifth st. NW.
Hodgson, Charles S	514 N st. NW.	Jung, Franz A. R	825 Vermont ave.
Hoffman, Walter J	222 E st. NW.	Jung, Sofie A. Nordhoff	825 Vermont ave.
Holden, Cora M	2811 Fourteenth st. NW.	Junghans, John H	1246 New Jersey ave. NW.
Holden, Raymond T	802 Sixth st. SW.	Kalusowski, Henry E	471 Pennsylvania ave. NW.
Hollifield, Horatio B	1850 Fifth st. NW.	Karlsloe, Wilhelm J	821 Seventeenth st. NW.
Holmes, Charles	1908 Thirteenth st. NW.	Keech, Thomas A. R	424 East Capitol st.
Holt, Warner	322 C st. NW.	Keenan, John F	United States Pension Bureau.
Hood, Thomas B	1009 O st. NW.	Kehrer, Augustus B	941 H st. NW.
Hooe, A. Barnes	Emergency Hospital.	Kelley, John T., jr	1909 I st. NW.
Hopkins, J. Milton	1821 L st. NW.	Kelly, Daniel J	1635 Nineteenth st. NW.
Hord, William T., jr	1702 Nineteenth st. NW.	Kempter, J. Elmund	1230 Thirtieth st. NW.
Hore, Cassius W	228 E st. NE.	Kennard, G. Howard	1519 Rhode Island ave. NW.
Horigan, William D	2420 Pennsylvania ave. NW.	Kerr, James	1711 H st. NW.
Hoskins, James T	1300 South Capitol st. SE.	Keyes, Charles W	1108 Eighth st. NW.
Hough, J. Spencer	511 Spruce st.	Kimball, Ephraim G	1204 Massachusetts ave. NW.
Housel, Firman	352 Eleventh st. SE.	King, Albert F. A	1315 Massachusetts ave. NW.
Houston, Sam	1411 Tenth st. NW.	King, Ernest F	
Howard, Acturus Lee	1126 Ninth st. NW.	King, William R	1422 K st. NW.
Howard, James H	350 Pomeroy st. NW.	Kingsman, Richard	711 East Capitol st.
Howard, Joseph T	1126 Ninth st. NW.	Kinnan, William A	1936 Fifth st. NW.
Howe, Orwin E	106 C st NW.	Kinyoun, J. J	1458 Stoughton st.
Howell, Arnold G	224 G st. SW.	Kirby, Edmund W	641 Fourth st. NE.
Howland, George T	825 Vermont ave.	Kleinschmidt, Carl H. A.	3048 N st. NW.
Hubbell, Wm. Wheeler	23 Fifth st. SE.	Klemm, John W	137 L st. NW.
Hughes, William D	651 H st. NE.	Kline, William J. K	1332 New York ave.
Hull, Theo. Y	Brookland, D. C.	Knapp, Herbert D	128 Tenth st. NE.
Hunt, Henry J	59 Myrtle st. NE.	Kober, George M	1819 Q st. NW.
Hunt, Presley C	2015 N st. NW.	Kolipinski, Louis	631 I st. NW.
Hunter, Montgomery	1232 Thirty-first st. NW.	Koonce, Howard	301 Second st. NW.
Huntt, Joseph R	933 Westminster st.	Koones, Charles K	600 M st. NW.
Hurtt, Harry	1510 H st. NW.	Kramer, Thomas B	634 A st. SE.
Hutchinson, Mahlon	720 Fourteenth st. NW.	Krogstad, Henry	915 Sixteenth st. NW.
Hyatt, Franck	1022 Fourteenth st. NW.	Kurtz, John	3142 P st.
Ingram, Thomas D	The Buckingham.	La Fetra, George H	1105 G st. NW.
Israeli, Baruch	506 Seventh st. SW.	La Fetra, Linnaeus E	1105 G st. NW.
Jack, William A., jr	1820 Sixteenth st. NW.	Lamb, Daniel S	800 Tenth st. NW.
Jackson, Albert L	Brookland, D. C.	Lamb, J. Melvin	906 G st. NW.
Jackson, Elmer E	1924 Sixth st. NW.	Landers, Thomas	1000 H st. NW.
Jackson, Virgil B	809 Thirteenth st. NW.	Lane, David A	726 Eighth st. NE.
Jamison, Albion B	3069 School st. NW.	Laney, Frank P	83 Defrees st. NW.
James, Charles H	Washington Asylum Hospital.	Lang, Charles J	1003 East Capitol st.
Janney, Edgar	No. 12 Iowa circle.	Latimer, Charles H	Government Hospital for the Insane.
Jarvis, G. L. Browne	1510 H st. NW.	Latimer, George	1326 New York ave.
Jenkins, Ralph	1732 Massachusetts ave. NW.	Lawrence, Albert L	Emergency Hospital.
Jenner, Norman R	1731 Twelfth st. NW.		

List of physicians entitled to practice in the District of Columbia, June 30, 1897—Continued.

Name.	Address.	Name.	Address.
Laws, James	1830 I st.	MacWilliams, Alex	475 Missouri ave.
Leadley, George W	618 Ninth st. NE.	Maddison, Benjamin F.	417 B st. SE.
Leatherman, Marshall E.	1415 Q st. NW.	Maddox, Albert S	1414 K st. NW.
Lee, Adelbert H	1403 H st. NE.	Maddox, William R	2139 Pennsylvania ave.
Lee, George H	1620 Fifteenth st.	Madella, William H	2111 Pennsylvania ave. NW.
Lee, Thacker E	1322 Fourteenth st. NW.	Magee, M. D'Arcy	
Leech, D. Olin	631 Maryland ave. NE.	Magruder, George L	815 Vermont ave.
Leech, Frank	1715 Fourteenth st. NW.	Mallam, Charles E	1532 Kingman place.
Lemon, Hanson T. A	629 G st SW.	Mallam, Thomas F	27 B st. SE.
Lenman, Louease N	929 F st. NW.	Mannakee, Elisha O	1626 Nineteenth st. NW.
Lewis, Duff G	1311 Fourteenth st. NW.	Manning, William P	1511 Rhode Island ave. NW.
Lewis, John L	633 East Capitol st.	Marble, Ella M. S	1112 New York ave. NW.
Lewis, Samuel E	1418 Fourteenth st. NW.	Marbury, Charles C	206 B st. SE.
Lewis, William L	Kensington, Md.	Marmion, George H	1115 F st. NW.
Lieber, Francis	1322 Eighteenth st. NW.	Marr, Samuel S	1415 Tenth st. NW.
Lincoln, Nathan S	1304 H st. NW.	Marshall, Charles H	2710 P st. NW.
Little, John J	1511 R st. NW.	Marshall, Collins	2507 Pennsylvania ave. NW.
Little, Joseph W	1313 Fourteenth st. NW.	Martin, Thomas	310 New York ave. NW.
Littlewood, James B	415 B st. NE.	Mason, Robert F	Columbia Hospital.
Lochboehler, George J.	55 K st. NW.	Mason, William C	1517 Eighth st. NW.
Long, William	2133 K st. NW.	Masterson, William L.	NE. corner North Capitol and I sts.
Lopp, William Henry	906 K st. NW.	Matthews, Washington.	1262 New Hampshire ave.
Loring, Francis B	1420 K st. NW.	Mattingly, William H	720 H st. NE.
Lothrop, Edwin S	807 East Capitol st.	Matson, Charles R	509 E st. NW.
Lovejoy, James W. H	900 Twelfth st. NW.	Maulding, James A	Howard University.
Lowe, Horace M	927 E st. NE.	Maxcy, Frederick E	1118 Rhode Island ave. NW.
Lozier, Kate E	1516 T st. NW.	Mayer, Robert D	1512 Thirty-second st. NW.
Luce, Charles R	215 Second st. SE.	Mayfield, Clifton	1335 Thirtieth st. NW.
Lucey, William A	332 Elm st.	Mazzei, Frank A	110 C st. NW.
Luckett, Llewellyn F.	1419 Rhode Island ave. NW.	Mead, Theodore	808 Twenty-second st. NW.
Luckett, William F	1419 Rhode Island ave. NW.	Medford, Homer S	138 C st. NW.
Luttrell, Samuel S	Falls Church, Va.	Mellott, Samuel W	930 F st. NW.
Lynch, Robert L	2449 P st. NW.	Menocal, Oscar A	1110 Connecticut ave.
Lynd, Ernest	4616 Woodland ave., Philadelphia, Pa.	Meredith, John Cabell	310 East Capitol st.
McArdle, Thomas E	821 Sixteenth st. NW.	Merriam, Arthur C	1201 New Jersey ave.
McBlair, John H	2029 I st. NW.	Metzerott, John H	1110 F st. NW.
McConnell, James C	609 Third st. NW.	Mew, William M	1410 Twenty-first st. NW.
McCormick, John H	1225 L st. NW.	Middleton, Rosier	1212 Ninth st. NW.
McCornack, Daniel P	1139 Twelfth st. NW.	Miller, A. Caldwell	1528 Ninth st. NW.
McDonald, Thomas B		Miller, Allen E	Bureau of Education.
McDuffie, Jos. A	1512 Madison st. NW.	Miller, J. Preston	1022 Twelfth st. NW.
McGee, Anita N	2027 Columbia road.	Miller, Maurice E	1339 Fifteenth st. NW.
McGrath, Bernard F	Columbia Hospital.	Miller, Stephen C	1324 New York ave. NW.
McGuire, James C	818 Seventeenth st. NW.	Miller, Thomas	1616 Seventh st. NW.
McIlheney, Jas. S	Hotel Oxford.	Miller, William L	410 K st. NW.
McKaig, Joseph F	2406 Pennsylvania ave. NW.	Mills, William P	1015 L st. NW.
McKeehan, George H	716 Twelfth st. NW.	Miner, Francis H	153 A st. NE.
McKim, Samuel A. H	25 Fifth st. SE.	Minnick, William H	702 Florida ave. NW.
McKimmie, Oscar A. M	1333 N st. NW.	Mischeaux, Paul J	716 S st. NW.
McLain, John S	1320 Nineteenth st. NW.	Mitchell, Andrew B	1204 K st. NW.
McLaughlin, Thos. N	1226 N st. NW.	Mitchell, John W	420 D st. SE.
McLoughlin, George N	907 N st. NW.	Moffitt, Melville M	127 B st. SE.
McManus, George R	1818 M st. NW.	Mohun, Thomas B	
McMaster, A. McF	717 Fourteenth st. NW.	Montgomery, Chas. W.	623 Sixth st. SW.
McMillan, Samuel M	418 H st. NE.	Montgomery, Jacob H.	1905 K st. NW.
McNally, Valentine	Hamilton House, Fourteenth and K. sts. NW.	Montgomery, Winfield S.	1912 Eleventh st. NW.
McNeil, Eaton K	804 Tenth st. NW.	Moore, Joseph B	40 New York ave. NW.
McPherson, Dorsey M	1822 Fifteenth st. NW.	Moore, Joseph H	720 Seventeenth st. NW.
McVary, Stephen A	411 Second st. SW.	Moore, Mark W	1203 North Capitol st.
MacDonald, George	1012 F st. NE.	Moran, John F	2426 Pennsylvania ave. NW.
Macdonald, Thomas L.	1402 Massachusetts ave. NW.	Moran, Pedro De S	3011 G st. NW.
Machinek, Camillo H	1110 New York ave. NW.	Morgan, Edwin L	2315 Pennsylvania ave. NW.
Mackall, James McV	1721 Riggs place.	Morgan, Gery	
Mackall, Louis	3040 Dumbarton ave.	Morgan, Francis P	1230 Ninth st. NW
Mackall, Louis, jr	1203 Thirty-first st.	Morgan, James D	919 Fifteenth st. NW.

of physicians entitled to practice in the District of Columbia, June 30, 1887—Continued.

Name.	Address.	Name.	Address.
s, George G	815 Fourteenth st. NW.	Perkins, Thomas L	908 Fifteenth st. NW.
son, Joseph	1753 P st. NW.	Perry, George N	1316 Q st. NW.
son, Mary E	625 T st. NW.	Peter, Armistead	3044 O st. NW.
, Edward E	1521 I st. NW.	Peterson, Bowman H	717 Fourteenth st. NW.
ell, William F	1810 S st. NW.	Petteys, Charles V	1822 Twelfth st. NW.
r, Murray G	2114 Connecticut ave. NW.	Phelps, William P	301 Thirteenth st. NW.
l, Joseph A	125 Third st. NE.	Phillips, Francis M	Laurel, Md.
l, Thomas D	107 Harrison st., Anacostia, D. C.	Phillips, William F. R	1500 Kingman place.
		Pickford, Edward F	719 A st. NE.
eman, Samuel A	1512 Eighth st. NW.	Pierre, Samuel M	718 Twenty-third st. NW.
aster, Magruder	1510 H st. NW.	Pile, Mayne M	1332 R st. NW.
aster, Otho M	802 Nineteenth st. NW.	Pinkard, Henry M	929 E st. NW.
aster, Stewart B	1510 H st. NW.	Polkinhorn, Henry A	414 Second st. NW.
lell, John H	1022 Eighteenth st. NW.	Pool, Benjamin G	945 Rhode Island ave.
on, Leonard W	1102 New York ave. NW.	Pope, Gustavus W	1109 Fourteenth st. NW.
on, Reginald	3101 P st. NW.	Porter, Herbert W	1426 Eleventh st. NW.
hy, Walter C	507 Fourth st. NW.	Portman, Adeline E	722 Eighteenth st. NW.
ay, T. Morris	730 Seventeenth st. NW.	Pospisiel, Joseph	1200 Florida ave. NE.
s, Randolph M	1227 New Hampshire ave.	Postley, Charles E	930 F st. NW.
		Potter, Margaret S	507 B st. NE.
, Patrick E	220 Seventh st. NE.	Poulton, William E	303 Four-and-a-half st. SW.
er, Walter P	1915 Eleventh st. NW.	Prather, John W	Rock Hill, S. C.
. Francis S	1225 Fifteenth st. NW.	Pratt, Alexis L	120 Eleventh st. NE.
n, J. Edward	523 Thirteenth st. NW.	Pratt, Daniel M	1238 Florida ave. NE.
ith, Francis M	Garfield Hospital.	Prentiss, D. Webster	1218 Ninth st. NW.
tt, James R	618 Third st. NW.	Prewitt, George T	127 E st. NW.
berne, Robt. E. L		Price, John F	607 Sixth st. SW.
ell, William M	626 C st. NE.	Price, P. Willis	1137 C st. NE.
ell, William S	1330 New York ave.	Price, William K	932 Twenty-second st. NW.
man, Henry M	2403 Pennsylvania ave. NW.	Pulsifer, Woodbury	1406 L st. NW.
ols, John B	Hospital, U. S. Soldiers' Home.	Purdy, Obadiah A	821 Fourth st. NE.
		Purman, Lewis C	15 Seventh st. SE.
olson, Leonard S	727 Eleventh st. NW.	Purnell, William W	1516 New Jersey ave. NW.
om, Henderson S	219 Four-and-a-half st. NW.	Purvis, Charles V	1118 Thirteenth st. NW.
hoff-Jung, Sofie A	825 Vermont ave.	Pyles, Harry V	34 Harrison st., Anacostia, D. C.
nan, Francis A	131 Maryland ave. NE.	Pyles, Richard A	115 Monroe st., Anacostia, D. C.
is, John L	Brightwood, D. C.	Quay, John B	627 Second st. NE.
is, Phebe R	613 Florida ave. NW.	Quick, Tunis C	1200 C st. SW.
on, Rupert	1234 Fourteenth st. NW.	Quivey, William L	715 Fourteenth st. NW.
rood, John C	1632 Superior st. NW.	Radcliffe, Samuel J	906 Fourteenth st. NW.
lin, Homer E	940 New York ave.	Ramsburgh, Jesse	Providence Hospital.
, George C	210 B st. SE.	Rand, William H	2223 Fifteenth st.
ien, Emilie Y	2825 Fourteenth st. NW.	Ransom, Stacy A	72 M st. NW.
nnell, Jeffery C	Trenton (P. O. building), N. J.	Raub, Jacob F	201 East Capitol st.
nnor, Charles E	815 Ninth st. NW.	Rauterberg, Arthur C	510 Fifth st. NW.
el, Theodore E	Milledgeville, Ga.	Rauterberg, Lewis E	510 Fifth st. NW.
n, David M	1624 P st. NW.	Ravenburg, Rudolph	1322 W st. NW.
William J	1729 H st. NW.	Ray, Anthony M	633 East Capitol st.
illy, Thomas	11 M st. NW.	Raymond, John U	666 E st. NE.
in, Little C	1161 First st. NW.	Reed, Joseph O	201 Pennsylvania ave. SE.
aw, John S	1415 Corcoran st. NW.	Reeve, Delos N	1417 Columbia st.
ey, William T	206 F st. NW.	Reeve, Jesse N	1746 N st. NW.
, William R	1014 Massachusetts ave. NW.	Reeves, Will H	506 C st. SE.
		Reinherdt, Otto M	500 Fourth st. SE.
, Francis E	1714 New Jersey ave. NW.	Reisinger, Emory W	1209 Thirteenth st. NW.
er, Edward M	1021 Connecticut ave. NW.	Rench, Victor B	27 Grant Place NW.
		Repetti, Frederick F	46 I st. NW.
er, Joseph M	1100 Pennsylvania ave. SE.	Repetti, John J	
inson, Bernard A	1711½ Seventh st. NW.	Reville, Laura M	809 Eleventh st. NW.
ott, Richard L	1916 Eleventh st. NW.	Reyburn, Ella F	2129 F st. NW.
ons, Alfred V	Takoma Park, D. C.	Reyburn, Eugenia	2129 F st. NW.
ons, Mary A	1216 H st. NW.	Reyburn, Robert	2129 F st. NW.
ons, Starr	306 C st. NE.	Reyburn, Robert, jr	714 Thirteenth st. NW.
erson, Edwin W	1103 Thirteenth st. NW.	Ribble, George T	902 East Capitol st.
		Rich, Frank R	3238 N st. NW.
, Melvin De W	934 F st. NW.	Richards, Alfred	1123 New Jersey ave. SE.
e, Charles W	140 Massachusetts ave. NE.	Richards, Nancy D	125 B st. SE.
od, Hiram J	Bunker Hill road, Brookland, D. C.	Richardson, Charles W.	1102 L st. NW.
ins, Edward D	944 Virginia ave. SW.	Richardson, Edward E	400 Seventh st. SW.
		Richardson, George H	309 Eleventh st. NE.

List of physicians entitled to practice in the District of Columbia June 30, 1897—Continued.

Name.	Address.
Richey, Stephen O	732 Seventeenth st. NW.
Richmond, Paul	26 Grant Place.
Riegel, William A. L	Riggs House.
Riley, Terrence G	1307 Kenesaw ave.
Ritchie, Louis W	3259 N st. NW.
Robbins, Ansel J	16 Third st. NE.
Robbins, Henry A	1750 M st. NW.
Roberts, Edwin E	621 East Capitol st.
Roberts, Grace	1109 K st. NW.
Roberts, Palmer W	621 East Capitol st.
Roberts, Robert R	1639 Twelfth st. NE.
Roberts, William	2500 Pennsylvania ave.
Robins, William L	1700 Thirteenth st. NW.
Robinson, Thomas	1358 Emerson st.
Rollings, Harry W	2220 H st. NW.
Roman, Frederick O	1501 Eighth st. NW.
Roush, Alva S	Hinton, W. Va.
Roy, Philip S	North Capitol and L sts. NW.
Ruffin, Sterling	1023 Vermont ave.
Russell, Howard C	1021 Connecticut ave.
Rutherford, Jesse B	Harrisburg, Pa.
Ryan, Harvey E	415 G st. NW.
Saffold, James P	924 R st. NW.
Sage, John B	206 Eleventh st. SE.
St. Clair, Francis A	1319 T st. NW.
St. Clair, Francis O	1428 Rhode Island ave. NW.
Samson, Geo. C	2423 Pennsylvania ave. NW.
Savage, Linnæus S	Benning, D. C.
Sawyer, John F	1115 Seventh st. NW.
Schaeffer, Edward M	825 Fourteenth st. NW.
Schelksohn, Otto W	535 Eleventh st. SE.
Scholl, Joseph	615 D st. NW.
Schricker, Walter F	401 Seventh st. NW.
Scott, Edward D	1229 T st. NW.
Scott, James F	1138 Connecticut ave.
Scott, William K	Anacostia, D. C.
Seibert, Edward G	24 Grant place.
Sellhausen, Ernest A	640 G st. NW.
Seltzer, Henry H	445 Fifth st. NE.
Sessford, Joseph S. F	2424 Pennsylvania ave.
Sewell, Charles A	1133 Twentieth st. NW.
Shadd, Furmann J	901 R st. NW.
Shade, Nevin B	1232 Fourteenth st. NW.
Shands, Aurelius R	1306 H st. NW.
Shaw, John W	1453 Rhode Island ave.
Shearer, Juliet G	1216 H st. NW.
Shekell, Abraham B	1529 Thirty-second st. NW.
Shelley, Albert	Woodside, Md.
Shepard, Jackson B	1613 Madison st. NW.
Shimer, Reuben L	400 Ninth st. SE.
Shirley, John J	3309 O st. NW.
Shoulters, George H	719 Eleventh st. NW.
Shoup, Jesse	115 Maryland ave. NE.
Shrader, Houston D	804 Ninth st. NW.
Shute, Daniel K	1120 New York ave. NW.
Shute, Augusta P	224 Maryland ave. NE.
Sillers, Robert F	313 H st. NW.
Simmons, Sherod S	2224 Sixth st. NW.
Simpson, Edward P	Oxon Hill, Md.
Simpson, John C	Government Hospital for the Insane.
Slattery, John J	232 Eleventh st. SE.
Slaymaker, Edmund W	Tennallytown, D. C.
Smart, Benjamin H	1224 Sixth st. NW.
Smith, George W	120 Seventh st. SE.
Smith, Hugh M	1248 New Jersey ave. NW.
Smith, Julia E	1100 M st. NW.
Smith, Leon J	3104 N st. NW.
Smith, Percy G	2002 Fourteenth st. NW.
Smith, Peter M	613 Sixth st. SW.
Smith, Thomas C	1133 Twelth st. NW.
Snyder, Arthur A	3051 N st. NW.
Sohon, Frederick	512 I st. NW.
Sonnenschmidt, Chas. W	1307 H st. NW.
Sothoron, Elmer	1921 I st. NW.
Sothoron, Levin J	1917 I st. NW.
Southworth, Richmond J	1230 Thirty-sixth st. NW.
Sowers, Zachariah T	1330 New York ave. NW.
Spackman, Mary D	1634 Sixteenth st. NW.
Sprigg, William M	1015 Sixteenth st. NW.
Squire, Linus T	12 Fourth st. SE.
Squire, Susanna J	12 Fourth st. SE.
Stack, Morris J	Government Hospital for the Insane.
Stafford, John J	514 Sixth st. SW.
Staples, Aubrey H	476 Palaside ave., Jersey City, N. J.
Stavely, Albert L	1234 Fourteenth st. NW.
Stearns, John S	1425 Rhode Island ave. NW.
Stearns, Solomon S	1425 Rhode Island ave. NW.
Steigers, Alonzo F	718 Eleventh st. NW.
Stevens, Albert H	Nichols ave., Anacostia, D. C.
Stevens, Edward	1702 P st. NW.
Stevens, Henry C	224 D st. NW.
Stewart, Charles C	2010 E st. NW.
Stewart, William A	1500 Twentieth st.
Stone, Charles G	Brightwood, D. C.
Stone, Isaac S	1449 Rhode Island ave. NW.
Stone, James H	1308 Rhode Island ave. NW.
Stone, Thomas R	1345 F st. NW.
Storch, August B	142 E st. NE.
Story, James J	1328 Maryland ave. NE.
Stoutenburgh, John A	1326 New York ave. NW.
Stowell, Charles H	1326 New York ave. NW.
Street, Daniel B	1102 Ninth st. NW.
Street, Daniel B., jr	1102 Ninth st. NW.
Street, Harlow R	606 East Capitol st.
Strickler, Melchior B	512 East Capitol st.
Strobel, Mary L	2522 L st. NW.
Stuart, Albert R	7 Dupont circle.
Stuart, James	1226 Fourteenth st. NW.
Suddarth, James L	821 North Capitol st.
Sudler, Thomas	206 Elm st. NW.
Sullivan, Welbie L	720 Sixth st. NE.
Summy, Benn W	920 Nineteenth st. NW.
Suter, Henderson	3050 N st NW.
Suter, W. Given	821 North Capitol st.
Suter, William N	1728 K st. NW.
Sutliff, Milo H	1910 Fifth st. NW.
Swartwout, Frank A	209 Ninth st. SW.
Swain, Oliver A. T	321 E st. NE.
Swett, Fred K	1109 I st. NE.
Swormstedt, Lyman B	1455 Fourteenth st. NW.
Tancil, Arthur W	2111 Pennsylvania ave. NW.
Tarkington, Joseph A	419 Second st. NW.
Taylor, Alfred H	485 H st. SW.
Taylor, Thomas	238 Massachusetts ave. NE.
Taylor, William H	2232 Sixth st. NW.
Test, Frederick C	1218 Eleventh st. NW.
Thomas, Ada R	1400 L st. NW.
Thomas, Carrie H	2226 Sixth st. NW.
Thomas, John D	1134 Connecticut ave.
Thompson, Edgar D	631 East Capitol st.
Thompson, Henry P. P	1218 New Hampshire ave. NW.

f physicians entitled to practice in the District of Columbia June 30, 1897—Continued.

Name.	Address.	Name.	Address.
son, J. Ford	804 Seventeenth st. NW.	Wells, Charles A	Hyattsville, Md.
son, Millard F	484 Maryland ave. SW.	Wells, Walter A	1101 Fourteenth st. NW.
on, Wesley D	1504 Sixth st. NW.	Werber, Gustavus E	1119 I st. NW.
en, William J. R	459 M st. NW.	Wertenbaker, Clark I	1524 O st. NW.
, William L	324 G st. SW.	West, Charles I	602 K st. NW.
kins, Edmund L	1134 Connecticut ave.	West, George W	1102 Fourteenth st. NW.
John E	Government Hospital for the Insane.	West, William E	Columbia Hospital.
an, Josiah B	534 Third st. NE.	Westlake, John A	920 New York ave. NW.
n, James R	1222 Eleventh st. NW.	Wetmore, William O	820 H st. NE.
, William P	1629 Fourteenth st. NW.	Whitney, Charles F	703 Ninth st. NE.
, Molyneaux	Emergency Hospital.	Whittington, Thos. A	1205 Q st. NW.
Abbie C	1126 Twelfth st. NW.	Wiber, David E	1210 F st. NW.
Robert B	Freedmen's Hospital.	Wilder, James R	412 B st. SE.
, William C	Langdon, D.C.	Wilkinson, Alfred D	455 Massachusetts ave. NW.
r, Thomas L	1319 L st. NW.	Williams, Daniel H	Freedmen's Hospital.
rank P	1327 L st. NW.	Williams, Greene D	1461 Pierce place.
ensselaer, John	2 Thomas circle.	Williams, J. Buxton, jr	Brookland, D.C.
t, Thomas N	1221 N st. NW.	Williston, Edward D	1434 T st. NW.
dorf, Rudolph H	918 N st. NW.	Wilmer, William H	1330 New York ave. NW.
r, Henry G	1120 Twelfth st. NE.	Wilson, Anne A	1451 Rhode Island ave. NW.
r, Robert S	Hartleton, Union Co., Pa.	Wilson, Lewes D	316 B st. SE.
r, William F	Fifth and L sts. NW.	Winter, Eugene C. C	815 Four-and-a-half st. SW.
r, Allen	Woodburn, Terra Cotta, D.C.	Winter, John T	719 Mount Vernon sq.
r, Robert A	1411 Pennsylvania ave. NW.	Witmer, Abraham H	Government Hospital for Insane.
Joseph S	Children's Hospital.	Wolfe, Edwin P	915 I st. NW.
George	919 New York ave. NW.	Wolhaupter, David P	1316 Twelfth st. NW.
, John E	203 East Capital st.	Wood, George W	2904 P st. NW.
, Ralph	1504 H st. NW.	Woode, Charles H	Third and F sts. SW.
, John	1010 F st. NW.	Woodman, Francis J	634 A st. NE.
r, Leroy D	1443 G st. NE.	Woodward, H. Wells	1114 New York ave. NW.
r, William F	487 H st. SW.	Woodward, William C	508 I st. NW.
Samuel A	1132 Twenty-second st. NW.	Wooster, Mary L	1433 L st. NW,
ld, William A	Freedmen's Hospital.	Wooster, Walter M	1433 L st. NW.
g, James H. N	1932 Eleventh st. NW.	Wright, George H	Tacoma Park, D.C.
an, William H. H	939 T st. NW.	Wright, Wilbur L	451 M st. NW.
n, George W	1212 H st. NE.	Yarnall, John H	3028 P st. NW.
n, Stanley S	Shelbyville, Tenn.	Yarrow, Henry C	814 Seventeenth st. NW.
urn, William S	1223 M st. NW.	Young, Glendie B	1433 Corcoran st. NW.
ngton, Richard	828 Twelfth st. NW.	Young, James T	1336 New York ave. NW.
ns, Edgar W	1107 Sixth st. NW.	Young, Parke G	1317 Eighth st. NW.
ns, Samuel E	1119 O st. NW.	Young, Samuel V	Twelfth and F sts. NW.
ns, Victor E	1510 Sixteenth st. NW.	Yount, Clarence E	803 H st. NW.
n, James A	201 Monroe st., Anacostia, D.C.	Zaremba, Marian A	330 Pennsylvania ave. SE.
, Samuel R	1343 V st. NW.	Zimmerman, Charles St. V.	18 N st. NW.
r, Clarence A	1614 Q st. NW.		
Edwin D	621 Second st. NW.		
Frank J	1407 Twenty-eighth st. NW., or 2007 Eighth st. NW.		
igton, John R	1335 N st. NW.		

APPENDIX E.

LIST OF PHYSICIANS ENTITLED TO PRACTICE IN THE DISTRICT OF COLUMBIA, JUNE 30, 1897.

Name.	Address.
Abbott, Griffith E.	2411 Fourteenth st. NW
Acker, George N.	913 Sixteenth st. NW.
Adams, Arthur C.	619 Massachusetts ave. NE.
Adams, Clarence B. S	422 Eighth st. SE.
Adams, J. Lee.	Takoma Park, D. C.
Adams, James O.	937 N st. NW.
Adams, Samuel S.	1 Dupont circle.
Ainsworth, F. C.	Record and Pension Div., War Dept.
Alderman, Ashael H.	Langdon, D. C.
Alderman, Zenas W.	232 New Jersey ave.
Alleger, Walter W.	906 S st. NW.
Allen, Charles.	1320 G st. NW.
Allen, Charles L.	908 Fifteenth st. NW.
Allen, Elijah H.	210 L st. NW.
Allen, H. Jerome.	421 H st. NE.
Allen, Jacob S.	666 G st. NE.
Anderson, Joseph W.	1911 Eleventh st. NW.
Appleby, James F. R.	1430 Thirty-third st. NW.
Armstrong, Wm. J.	1306 Lydecker ave.
Arnold, John S.	24 Second st. NE.
Arwine, James T.	716 Four-and-a-half st. SW.
Ashford, Bailey K.	
Atkinson, Wade H.	707 Twelfth st. NW.
Atwood, Oliver M.	1526 L st. NW.
Ayres, William W.	1730 Q st. NW.
Babbitt, Zeno B.	810 Eleventh st. NW.
Bailey, Grafton D. P.	223 Four-and-a-half st. NW.
Bailey, Henry L.	1924 Eleventh st. NW.
Baker, Frank.	1804 Columbia road.
Baker, Leigh Y.	916 Fourteenth st. NW.
Baker, May D.	1434 S st. NW.
Baker, Robert W.	816 Seventeenth st. NW.
Baker, Willie W.	916 S st. NW.
Baldus, William T.	2144 Pennsylvania ave. NW.
Baldwin, Aaron.	1205 Eleventh st. NW.
Baldwin, Mosby.	1002 Rhode Island ave.
Ball, Charles A.	233 G st. NW.
Balloch, Edward A.	1218 Twelfth st. NW.
Banes, Hiram J.	119 E st. NW.
Barber, James M.	918 E st. NW.
Barbour, Frank A.	1327 Twelfth st. NE.
Barker, Howard H.	1116 H st. NW.
Barnes, Noble P.	611 Maryland ave. NE.
Barrie, George.	1629 Fourteenth st. NW.
Barrington, Richard L.	3514 N st. NW.
Barry, Edmund.	20 R st. NE.
Barry, John P.	1246 H st. NE.
Barstow, Edward C.	712 East Capitol st.
Barstow, Kate D.	712 East Capitol st.
Barton, Wilfred M.	336 B st. NE.
Battle, Lewis J.	300 Indiana ave.
Bayne, John W.	116 Second st. SE.
Beall, Benjamin M.	800 Fifth st. NE.
Beattie, Wray.	910 East Capitol st.
Beatty, Louis Kelley.	610 East Capitol st.
Beatty, Walter K.	610 East Capitol st.
Beckett, George M.	1911 Sixth st. NW.
Beckley, E. R.	Howard University.
Beebe, William B.	813 Eleventh st. NW.
Behrend, Adajah.	1214 K st. NW.
Behrend, Edwin B.	1214 K st. NW.
Belt, Edward O.	The Albany, Seventeenth and H sts. NW.
Bennett, Harrison M.	Takoma Park, D. C.
Bennett, Maitland C.	1728 Eighth st. NW.
Bennit, William W.	1423 S st. NW.
Benson, Elbert G.	1202 Maryland ave. NE.
Beresford, Galsworthy G.	936 F st. NW.
Bermann, Isidor.	1010 I st. NW.
Bevard, William A.	1313 Fourteenth st. NW.
Bevier, William D.	1420 Eleventh st. NW.
Billard, Jules F.	Laurel, Md.
Bird, James C.	812 Eighth st. NE.
Birdsall, Charles W.	1256 Thirty-first st. NW.
Bishop, Francis B.	1913 I st. NW.
Blackburn, Isaac W.	Government Hospital for the Insane.
Blake, Louisa M.	237 Eighth st. NE.
Bliss, Charles L.	1106 New York ave.
Bliss, James E.	604 H st. NE.
Boarman, Charles V.	1104 Maryland ave. SW.
Bogan, Fred. Macon	421 G st. NW.
Bogan, Samuel W.	421 G st. NW.
Bond, Samuel S.	818 New Jersey ave. NW.
Bonebrake, James H.	917 Third st. NW.
Boss, Rufus D.	307 East Capitol st.
Boswell, Archie W.	1239 H st. NE.
Boteler, William C.	817 Fifteenth st. NW.
Bovee, J. Wesley.	1404 H st. NW.
Bowen, Charles H.	607 Massachusetts ave. NW.
Bowen, William S.	1228 Sixteenth st. NW.
Boyd, George W.	121 Second st. NE.
Boyle, Frank C.	1939 Ninth st. NW.
Brackett, John E.	1310 Rhode Island ave.
Braden, Francis W.	719 East Capitol st.
Bradfield, Jefferson D.	1533 North Capitol st.
Branson, Joseph H.	1231 New Jersey ave. NW.
Brayshaw, J. Lacey.	Baltimore, Md.
Bromwell, Josiah R.	1147 Connecticut ave. NW.
Bronson, Charles E.	2434 Pennsylvania ave. NW.
Brooks, Floyd V.	405 Florida ave. NW.
Brooks, J. Henry.	Brookland, D. C.
Brooks, John D.	Brookland, D. C.
Brooks, Phil. B.	320 Third st. SW.
Brosius, Mary Alice.	1101 K st. NW.
Brown, Charles W.	902 Fourteenth st. NW.
Brown, Robert W.	1224 R st. NW.
Bruckheimer, Moses.	617 Sixth st. NW.
Brumbaugh, Gaius M.	904 Massachusetts ave. NW.
Brummett, Randolph B.	103 Fifth st. NE.

f physicians entitled to practice in the District of Columbia, June 30, 1897—Continued.

Name.	Address.
,James F	647 East Capitol st.
Joseph H	818 Seventeenth st. NW.
', John W	1723 N st. NW.
ieyer, Bernard	1433 U st. NW.
W. Thompson	1625 Fourteenth st. NW.
Francis E	450 K st. NW.
Thomas W	800 L st. NW.
t, Swan M	916 Farragut square.
,Alice	1129 Fourteenth st. NW.
,George C	810 H st. NE.
l, John P	904 Fourteenth st. NW.
Samuel C	1545 I st. NW.
William K	1207 M st. NW.
Patrick J	234 N st. NW.
Walter C	25 Iowa circle.
William F	35 B st. SE.
s, George W	1906 K st. NW.
ll, Charles T	949 S st. NW.
ll, William A	814 I st. N. W.
Cornelius V. N.	1422 F st. NW.
,Finley H	1009 Thirteenth st. NW.
n, Malcolm	1027 Twenty-second st. NW.
Herbert M	Takoma Park, D. C.
ill, Charles B	404 M st. NW.
ill, Thomas B	1102 Fourteenth st. NW.
, Walter D	Fredonia Hotel.
rt, Baldy A	1814 H st. NW.
), Francis J	301 Second st. SW.
, George M	229 Indiana ave.
, Louis D	1351 Q st. NW.
ıael, Randolph	723 Eighteenth st. NW.
illiam P	1418 L st. NW.
ır, John V	812 E st. SE.
James	Army Medical Museum.
James J	1322 Thirteenth st. NW.
Robert L	948 R st. NW.
Durus D	1202 Q st. NW.
Marion B	1120 Ninth st. NW.
ck, De Witt C	61 I st. NW.
rlin, Frank T	226 New Jersey ave. SE.
ın, Nathaniel	1212 K st. NW.
ll, John W	Tennallytown, D. C.
,Francis M	1208 Q st. NW.
Thomas I	226 E. Capitol st.
Creed W	513 Third st. SW.
Rufus	3267 O st. NW.
, James R	1407 New York ave.
George C	321 East Capitol st.
ames J	Brightwood, D. C.
Saliaferro	1309 H st. N. W.
, Thomas A	5 Dupont circle
s, James E	714 Thirteenth st. NW.
s, Phineas H	629 Florida ave. NE.
z, Horace B	467 Florida ave. NW.
ton	1110 F st. NW.
, Willard H	5 Tennessee ave. NE.
thur B	1541 M st.
orge R. L	424 Seventh st. SW.
hn T	907 H st. NE.
n, Horace	1107 Massachusetts ave. NW.
Albert R	468 E st. SW.
Charles R	1125 Fourteenth st. NW.
Edward J	823 Eleventh st. NE.
John F	1305 Third st. NW.
n, William P	The Albany.
, George E	3230 N st. NW.
William H	1130 Twenty-second st. NW.
eorge W	3 Thomas circle.
Robert R	Washington, Fayette County, Ohio.
e, Augustus B.	1113 G st. NW.
Corbin, William E	1005 Twenty-third st. NW.
Corey, George B	Howard University.
Corey, Waterman F	1305 R st. NW.
Cornish, Mabel	225 First st. SE.
Coumbe, Arthur G	1312 Ninth st. NW.
Coumbe, Oscar H	1312 Ninth st. NW.
Cowden, J. Morrow	715 Thirteenth st. NW.
Cox, S. Clifford	Hyattsville, Md.
Crittenden, Thomas B.	928 New York ave. NW.
Crook, Harrison	918 Fourteenth st. NW.
Crosson, Henry J	819 Nineteenth st. NW.
Crowe, John W	2905 M st. NW.
Crush, Alice S	712 Eighth st. NW.
Cursor, Collin B	1331 Twenty-eighth st. NW.
Cummiskey, Edw. F	441 Seventh st. SW.
Currier, George R	3320 Thirteenth st. NW.
Custis, George W. N	112 East Capitol st.
Custis, J. B. Gregg	110 East Capitol st.
Custis, Marvin A	634 East Capitol st.
Cuthbert, Middleton F.	1462 Rhode Island ave.
Czarra, Sigmund A	619 Pennsylvania ave. NW.
Danforth, Roderick F.	919 Twelfth st. NW.
Daniel, Robert A	715 Fifth st. NW.
Daniels, Uriah J	2025 L st. NW.
Darby, John J	311 A st. NE.
Darling, Henry	Brightwood, D. C.
Darrah, Austin A	9 Eleventh st. NE.
Davidson, Edward Y	154 E st. NE.
Davidson, Falconer	204 Pennsylvania ave. SE.
Davis, Carrie E	1434 S st. NW.
Davis, Charles A	1010 Fifteenth st.
Davis, Llewellyn F	1108 New York ave.
Davison, Joseph C	1321 G st. NW.
Dawson, Charles F	1118 Virginia ave. SW.
Day, Geo. Frank	915 N st. NW.
Deale, Henry B	1224 Fourteenth st. NW.
De Carré, Alfred	Brightwood, D. C.
Deeble, Horace M	602 M st. NW.
Demarest, Cornelius L	644 East Capitol st.
Dennison, Ira W	1326 L. st. NW.
Devereux, J. Ryan	1724 S st. NW.
Dillenbach, William J.	1340 R st. NW.
Dixon, Henry M	2149 Pennsylvania ave. NW.
Dobson, Hervie A	100 Eleventh st. NE.
Dobson, William H	100 Eleventh st. NE.
Dolan, Patrick V	1408 Eleventh st. NW.
Donohue, Florence	1134 Eighth st. NW.
Dooley, Francis X	1627 Fourteenth st. NW.
Dorsey, John S	1415 P st. NW.
Douglas, Alanson S	631 G st. NE.
Douglas, James F	19 Fifth st. NE.
Douglas, Robert	936 F st. NW.
Drane, Frank C	Takoma Park, D. C.
Drawbaugh, John A	18 Sixth st. SE.
Drenford, George	Catholic University, Baltimore, Md.
Drury, George A	605 Florida ave. NW.
Du Bose, George P	2903 Q st. NW.
Duffey, Hugh C	1251 Ninth st. NW.
Dufour, Clarence R	1016 Fourteenth st. NW.
Dulaney, Joshua L	926 I st. NW.
Dumas, Michel O	1234 Fourth st. NW.
Dunn, Henry A	901 U st. NW.
Dye, Hobart S	1400 K st. NW.
Dyrenforth, Robert G.	1503 Rhode Island ave. NW.
Eaton, Parley H	1318 T st. NW.
Eddy, Otis J	1215 Rhode Island ave.
Edmonston, Raphael A	521 Third st. NW.
Eggleston, James D	626 Ninth st. NE.
Egleston, George W	NE. cor. First st. and New York ave. NW.

List of physicians entitled to practice in the District of Columbia, June 30, 1897—Continued.

Name.	Address.	Name.	Address.
Elgin, William F	Bethesda, Md.	Gleeson, James K. P	1316 R st. NW.
Eliot, J. Llewellyn	1106 P st. NW.	Gobrecht, William H	905 M st. NW.
Eliot, Johnson	1417 N st. NW.	Godding, William W	Government Hospital for the Insane.
Elliott, Charles S	325 East Capitol st.	Godfrey, Carlos E	728 Fourth st. SE.
Elliott, Henry R	1826 N st. NW.	Godfrey, George M	Indian Head, Md.
Ellis, Hannah C	1113 G st. NW.	Goines, William H	506 P st. NW.
Elliott, Jerre B	1804 G st. NW.	Goldsborough, Edmund K.	1331 K st. NW.
Ellis, Joseph C	1113 G st. NW.	Goodall, Henry S	Charlemont, Mass.
Ellyson, Robert M	1535 Eighth st. NW.	Goodman, William R	1219 Tenth st. NW.
Emmons, Charles Mc	3063 Fifteenth st. NW.	Gosling, Henry L	3209 Seventeenth st. NW.
English, Charles H	1107 G st. NW.	Gracy, George W	1477 Kenesaw ave.
Erbach, Amelie	122 Third st. SE.	Graham, Neil F	909 New York ave.
Eslin, James T	901 S st. NW.	Graham, Robert H	303 H st. NW.
Evans, Albert W	1221 Eleventh st. NW.	Graham, James F	611 Whitney ave.
Evans, Warwick	1105 Ninth st. NW.	Grandfield, Charles P	1951 Harewood ave. NW.
Evans, Wilson B	1926 Twelfth st. NW.	Gray, Clarence A	622 O st. NW.
Eversfield, Wm. O	College Park, Md.	Greene, Lawrence M	2018 Second st. NW.
Ezdorf, Rudolph H. von	918 N st. NW.	Greenleaf, Harry S	1330 Thirtieth st. NW.
Fadeley, George B	921 F st. NW.	Griffin, Thomas A	320 C st. SE.
Falconer, Bolivar L	1509 Rhode Island ave. NW.	Griffith, Michael J	656 L st. NE.
Fales, Warren D	915 L st. NW.	Griffith, Monte	2006 Fourteenth st. NW.
Farly, James M	907 N st. NW.	Grinder, George W	923 Ninth st. NW.
Featherstonhaugh, Thomas.	210 Delaware ave. NE.	Groce, Henry R	823 Sixth st. NE.
Fenwick, George P	504 Sixth st. SW.	Groce, S. Marie	823 Sixth st. NE.
Ferguson, Charles E	413 L st. NW.	Groot, Simon I	924 New York ave.
Ferguson, Thomas M	2224 Sixth st. NW.	Gruel, Louis T	Twelfth and F streets NW.
Filler, Charles W	1708 Q st. NW.	Grunwell, Alfred G	1515 Thirtieth st. NW.
Finley, Clara B	1339 T st. NW.	Guss, Harry T	1406 Binney st. NW.
Fishblat, Albert S	Oxford Hotel.	Gwynn, Oscar J	1118 New Hamsphire ave.
Fisher, George W	112 Jackson st., Anacostia, D. C.	Hagner, Charles E	1744 M st. NW.
Ford, J. Herbert	314 Second st. SE.	Hagner, Francis R	1744 M st. NW.
Ford, William C	928 New York ave. NW.	Hall, Arthur J	811 Thirteenth st. NW.
Foster, George W	Government Hospital for Insane.	Hall, J. Mitchell	1512 L st. NW.
Foster, Romulus A	2029 Q st. NW.	Hall, Julia R	Howard University.
Foster, Warren W	1313 Fourteenth st. NW.	Hall, W. R	1520 Connecticut ave.
Fowler, Ernest W	404 M st. NW.	Hamilton, James R	1327 Q st. NW.
Fowler, William C	1141 Fifth st. NW.	Hamilton, Richard T	2358 Sixth st. NW.
Fox, George L	121 Sixth st. NE.	Hammett, Charles M	644 F st. SW.
Fox, William H	1826 Jefferson place.	Hammett, Chas. M., jr	1328 New York ave. NW.
Francis, John R	2112 Pennsylvania ave.	Hammond, Thos. V	1713 H st. NW.
Frankland, W. Ashby	916 Eighth st. NW.	Hammond, William A	Thirteenth and Princeton sts.
Franzoni, Charles W	605 I st. NW.	Hance, Theodore F	Pension Office.
Freer, James A	1523 I st. NW.	Hancock, Eugene Thos	713 Fourteenth st. NW.
Freeze, Harris H	510 Seventh st. NE.	Handy, William E	218 Second st. SE.
French, Leigh H	825 Vermont ave.	Hannon, Samuel L	1237 Tenth st. NW.
French, William B	506 East Capitol st.	Hansmann, Theodore	1310 I st. NW.
Friederich, Leon L	329 East Capitol st.	Hardesty, Joseph R. L	1733 Riggs place NW.
Frost, Ellis F	513 Sixth street NW.	Harding, Gena R	The Shoreham.
Frost, John W	1841 G st. NW.	Harding, Harry T	2650 Fourteenth st. NW.
Fry, Henry D	1133 Fourteenth st. NW.	Hardin, B. L	916 Fourteenth st. NW.
Gaines, Richard L	2243 Brightwood ave.	Harmer, James B	1314 F st. NW.
Gallagher, Matilda J	112 Fourth st. SE.	Harrison, Charles S	1916 Eleventh st. NW.
Gallagher, Michael F	900 K st. NW.	Harrison, George B	1223 Connecticut ave.
Gallagher, Patrick J	321 Fifth st. SE.	Harrison, Herbert A	Homeopathic Hospital, Second and N sts.
Gardner, Franklin A	1018 Fourteenth st. NW.	Harrison, James S	907 H st. NW.
Garrison, Fielding A	1427 R st. NW.	Harrison, John S	200 Monroe st., Anacostia, D. C.
Garthwaite, Isaac S	467 Florida ave. NW.	Harrison, Julia C	The Cairo.
Garvin, Mary J	Hotel La Fetra.	Hart, James W	518 B st. NE.
Gatchell, William F	604 E st. NE.	Hartsock, Fred'k M	Garfield Memorial Hospital.
Geddes, William	1719 G st. NW.	Harvey, Heber McK	610 B st NE.
Gehring, Gustave P	623 F st. NW.	Harvey, Levin A	1142 Seventh st. NW.
Gentsch, Daniel C	226 I st. NW.	Hasbrouck, Edwin M	3025 Fourteenth st.
Gibbs, Benjamin F	2934 Fourteenth st. NW.	Haskins, Henry W	1622 Vermont ave. NW.
Gibbs, Edwin A	1608 Thirteenth st. NW.	Haslup, Isabelle	639 Maryland ave. NE
Gibbs, Thomas F	935 Rhode Island ave.	Havener, George C	Anacostia, D. C.
Gilbert, Charles B	1403 H st. NW.	Hawkes, William H	734 Seventeenth st. NW.
Gilbert, C. Evelyn	455 Missouri ave. NW.	Hawxhurst, Howard H	1333 L st. NW.
Gill, William T	505 O st. NW.		
Gillette, Hubbard	Corner Thirteenth and V sts. NW.		
Gilliland, Orange C	622 Eleventh st. NE.		
Gladmon, Edwin	248 Delaware ave. NE.		
Glazebrook, Larkin W	2022 P st. NW.		

' physicians entitled to practice in the District of Columbia, June 30, 1897—Continued.

Name.	Address.
ienry L	113 First st. NE. or 1416 Rhode Island ave.
[. Robert	46 C st. NE.
Henry M	1347 Q st. NW.
)avid H	407 Sixth st. SW.
William P. C	511 East Capitol st.
er, Ida J	722 Eighteenth st. NW.
e, George B	804 Eleventh st. NW.
William H	1108 H st. NE.
ller, George H	1309 Fourteenth st. NW.
Joseph M	Garfield Memorial Hospital.
Addison S	252 Ninth st. NE.
son, George	817 T st. NW.
. James T	405 Ninth st. NE.
n, James H	1101 F st. NW.
, James W	824 D st. SE.
, Joseph W	205 H st. NW.
ta, Charles V	505 Second st. SE.
George H	1016 Ninth st. NW.
William H	1016 Ninth st. NW.
r, D. Percy	232 Third st. NW.
, Raymond P	Homeopathic Hospital, Second and N sts.
hard S	Marlboro, Md.
Margaret	1021 Vermont ave. NW.
Edwin R	1920 H st. NW.
J. Walter	201 Second st. SE.
). Charles S	514 N st. NW.
). Walter J	222 E st. NW.
Cora M	2811 Fourteenth st. NW.
Raymond T	802 Sixth st. SW.
d, Horatio B	1850 Fifth st. NW.
Charles	1908 Thirteenth st. NW.
arner	322 C st. NW.
omas B	1009 O st. NW.
Barnes	Emergency Hospital.
, J. Milton	1821 L st. NW.
illiam T., jr	1702 Nineteenth st. NW.
selius W	228 E st. NE.
, William D	2426 Pennsylvania ave. NW.
James T	1300 South Capitol st. SE.
[. Spencer	511 Spruce st.
Firman	352 Eleventh st. SE.
. Sam	1411 Tenth st. NW.
Acturus Lee	1126 Ninth st. NW.
James H	350 Pomeroy st. NW.
Joseph T	1126 Ninth st. NW.
rwin E	106 C st. NW.
Arnold G	224 G st. SW.
[. George T	825 Vermont ave.
Wm. Wheeler	23 Fifth st. SE.
William D	651 H st. NE.
eo. Y	Brookland, D. C.
nry J	59 Myrtle st. NE.
esley C	2015 N st. NW.
Montgomery	1232 Thirty-first st. NW.
oseph R	933 Westminster st.
arry	1510 H st. NW.
son, Mahlon	720 Fourteenth st. NW.
ranck	1022 Fourteenth st. NW.
Thomas D	The Buckingham.
laruch	506 Seventh st. SW.
lliam A., jr	1820 Sixteenth st. NW.
Albert L	Brookland, D. C.
Elmer E	1924 Sixth st. NW.
Virgil B	819 Thirteenth st. NW.
, Albion B	3069 School st. NW.
harles H	Washington Asylum Hospital.
Edgar	No. 12 Iowa circle.
. L. Browne	1510 H st. NW.
Ralph	1732 Massachusetts ave. NW.
Norman R	1731 Twelfth st. NW.
Johnson, Albert E	117 B st. SE.
Johnson, Charles R	1224 Thirteenth st. NW.
Johnson, Frank G	1219 Maryland ave. NE.
Johnson, Henry A	1334 Eighth st. NW.
Johnson, Henry L. E	1402 L st. NW.
Johnson, J. Russell	1205 Q st. NW.
Johnson, John N	1217 Linden st. NE.
Johnson, Joseph Taber	1728 K st.
Johnson, Lincoln	1208 K st. NW.
Johnson, Louis A	709 C st. SW.
Johnson, Sidney L	819 New Jersey ave. NW.
Johnson, Wallace	926 Seventeenth st. NW.
Johnston, Gabriel F	1762 N st. NW.
Johnston, George W	1437 L st. NW.
Johnston, William W	1603 K st. NW.
Johnstone, Robert B	Sixth and D sts. NW.
Jolley, Bushrod B	1909 Vermont ave.
Jones, Daniel W	513 Second st. NW.
Jones, Eugene	2816 P st. NW.
Jones, John E	1213 O st. NW.
Jordan, Arthur	2026 H st. NW.
Jordan, Charles M	604 Eleventh st. NW.
Jordan, Llewellyn	2026 H st. NW.
Jouy, Joseph	2218 Pennsylvania ave.
Julihn, Magnus L	1423 Fifth st. NW.
Jung, Franz A. R	825 Vermont ave.
Jung, Sofie A. Nordhoff	825 Vermont ave.
Junghans, John H	1246 New Jersey ave. NW.
Kalusowski, Henry E	471 Pennsylvania ave. NW.
Karlsioe, Wilhelm J	821 Seventeenth st. NW.
Keech, Thomas A. R	424 East Capitol st.
Keenan, John F	United States Pension Bureau.
Kehrer, Augustus B	941 H st. NW.
Kelley, John T., jr	1909 I st. NW.
Kelly, Daniel J	1635 Nineteenth st. NW.
Kempter, J. Elmund	1230 Thirtieth st. NW.
Kennard, G. Howard	1519 Rhode Island ave. NW.
Kerr, James	1711 H st. NW.
Keyes, Charles W	1108 Eighth st. NW.
Kimball, Ephraim G	1204 Massachusetts ave. NW.
King, Albert F. A	1315 Massachusetts ave. NW.
King, Ernest F	
King, William R	1422 K st. NW.
Kingsman, Richard	711 East Capitol st.
Kinnan, William A	1936 Fifth st. NW.
Kinyoun, J. J	1458 Stoughton st.
Kirby, Edmund W	641 Fourth st. NE.
Kleinschmidt, Carl H. A.	3048 N st. NW.
Klemm, John W	137 L st. NW.
Kline, William J. K	1332 New York ave.
Knapp, Herbert D	128 Tenth st. NE.
Kober, George M	1819 Q st. NW.
Kolipinski, Louis	631 I st. NW.
Koonce, Howard	301 Second st. NW.
Koones, Charles K	600 M st. NW.
Kramer, Thomas B	634 A st. SE.
Krogstad, Henry	915 Sixteenth st. NW.
Kurtz, John	3142 P st.
La Fetra, George H	1105 G st. NW.
La Fetra, Linnaeus E	1105 G st. NW.
Lamb, Daniel S	800 Tenth st. NW.
Lamb, J. Melvin	906 G st. NW.
Landers, Thomas	1000 H st. NW.
Lane, David A	726 Eighth st. NE.
Laney, Frank P	83 Defrees st. NW.
Lang, Charles J	1008 East Capitol st.
Latimer, Charles H	Government Hospital for the Insane.
Latimer, George	1326 New York ave.
Lawrence, Albert L	Emergency Hospital.

List of physicians entitled to practice in the District of Columbia, June 1897—Continued.

Name.	Address.
Laws, James	1830 I st.
Leadley, George W	618 Ninth st. NE.
Leatherman, Marshall E.	1415 Q st. NW.
Lee, Adelbert H	1406 H st. NE.
Lee, George H	1620 Fifteenth st.
Lee, Thacker E	1322 Fourteenth st. NW.
Leech, D. Olin	631 Maryland ave. NE.
Leech, Frank	1715 Fourteenth st. NW.
Lemon, Hanson T. A	629 G st SW.
Lenman, Louease N	929 F st. NW.
Lewis, Duff G	1311 Fourteenth st. NW.
Lewis, John L	633 East Capitol st.
Lewis, Samuel E	1418 Fourteenth st. NW.
Lewis, William L	Kensington, Md.
Lieber, Francis	1322 Eighteenth st. NW.
Lircoln, Nathan S	1304 H st. NW.
Little, John J	1511 R st. NW.
Little, Joseph W	1313 Fourteenth st. NW.
Littlewood, James B	415 B st. NE.
Lochboehler, George J	55 K st. NW.
Long, William	2133 K st. NW.
Lopp, William Henry	906 K st. NW.
Loring, Francis B	1420 K st. NW.
Lothrop, Edwin S	807 East Capitol st.
Lovejoy, James W. H	900 Twelfth st. NW.
Lowe, Horace M	927 E st. NE.
Lozier, Kate E	1516 T st. NW.
Luce, Charles R	215 Second st. SE.
Lucey, William A	332 Elm st.
Luckett, Llewellyn F	1419 Rhode Island ave. NW.
Luckett, William F	1419 Rhode Island ave. NW.
Luttrell, Samuel S	Falls Church, Va.
Lynch, Robert L	2449 P st. NW.
Lynd, Ernest	4616 Woodland ave., Philadelphia, Pa.
McArdle, Thomas E	821 Sixteenth st. NW.
McBlair, John H	2029 I st. NW.
McConnell, James C	609 Third st. NW.
McCormick, John H	1225 L st. NW.
McCornack, Daniel P	1139 Twelfth st. NW.
McDonald, Thomas B	
McDuffie, Jos. A	1512 Madison st. NW.
McGee, Anita N	2027 Columbia road.
McGrath, Bernard F	Columbia Hospital.
McGuire, James C	818 Seventeenth st. NW.
McIlheney, Jas. S	Hotel Oxford.
McKaig, Joseph F	2406 Pennsylvania ave. NW.
McKeehan, George H	716 Twelfth st. NW.
McKim, Samuel A. H	25 Fifth st. SE.
McKimmie, Oscar A. M	1333 N st. NW.
McLain, John S	1320 Nineteenth st. NW.
McLaughlin, Thos. N	1226 N st. NW.
McLoughlin, George N	907 N st. NW.
McManus, George R	1818 M st. NW.
McMaster, A. McF	717 Fourteenth st. NW.
McMillan, Samuel M	418 H st. NE.
McNally, Valentine	Hamilton House, Fourteenth and K. sts. NW.
McNeil, Eaton K	804 Tenth st. NW.
McPherson, Dorsey M	1822 Fifteenth st. NW.
McVary, Stephen A	411 Second st. SW.
MacDonald, George	1012 F st. NE.
Macdonald, Thomas L	1402 Massachusetts ave. NW.
Machinek, Camillo H	1110 New York ave. NW.
Mackall, James McV	1721 Riggs place.
Mackall, Louis	3040 Dumbarton ave.
Mackall, Louis, jr	1203 Thirty-first st.
MacWilliams, Alex	475 Missouri ave
Maddison, Benjamin F	417 B st. SE.
Maddox, Albert S	1414 K st. NW.
Maddox, William R	2139 Pennsylvan
Madella, William H	2111 Pennsylvan NW.
Magee, M. D'Arcy	
Magruder, George L	815 Vermont av
Mallam, Charles E	1532 Kingman p
Mallam, Thomas F	27 B st. SE.
Mannakee, Elisha O	1626 Nineteen NW.
Manning, William P	1511 Rhode Isla NW.
Marble, Ella M. S	1112 New Yo NW.
Marbury, Charles C	206 B st. SE.
Marmion, George H	1115 F st. NW.
Marr, Samuel S	1415 Tenth st.
Marshall, Charles H	2710 P st. NW.
Marshall, Collins	2507 Pennsylva NW.
Martin, Thomas	310 New Yo NW.
Mason, Robert F	Columbia Hos
Mason, William C	1517 Eighth st.
Masterson, William L	NE. corner Capitol and
Matthews, Washington.	1262 New Ha ave.
Mattingly, William H	720 H st. NE.
Matson, Charles R	509 E st. NW.
Maulding, James A	Howard Univ
Maxcy, Frederick E	1118 Rhode Isl NW.
Mayer, Robert D	1512 Thirty-s NW.
Mayfield, Clifton	1335 Thirtieth
Mazzei, Frank A	110 C st. NW.
Mead, Theodore	808 Twenty-s NW.
Medford, Homer S	138 C st. NW.
Mellott, Samuel W	930 F st. NW.
Menocal, Oscar A	1110 Connecti
Meredith, John Cabell	310 East Capit
Merriam, Arthur C	1201 New Jers
Metzerott, John H	1110 F st. NW.
Mew, William M	1410 Twenty- NW.
Middleton, Rosier	1212 Ninth st.
Miller, A. Caldwell	1528 Ninth st.
Miller, Allen E	Bureau of Ed
Miller, J. Preston	1022 Twelfth s
Miller, Maurice E	1339 Fifteenth
Miller, Stephen C	1324 New Y NW.
Miller, Thomas	1616 Seventh s
Miller, William L	410 K st. NW.
Mills, William P	1015 L st. NW.
Miner, Francis H	153 A st. NE.
Minnick, William H	702 Florida av
Mischeaux, Paul J	716 S st. NW.
Mitchell, Andrew B	1204 K st. NW.
Mitchell, John W	420 D st. SE.
Moffitt, Melville M	127 B st. SE.
Mohun, Thomas B	
Montgomery, Chas. W	623 Sixth st. S
Montgomery, Jacob H	1905 K st. NW.
Montgomery, Winfield S.	1912 Eleventh
Moore, Joseph B	40 New York a
Moore, Joseph H	720 Seventee NW.
Moore, Mark W	1203 North Ca
Moran, John F	2426 Pennsylv NW.
Moran, Pedro De S	2011 G st. NW.
Morgan, Edwin L	2315 Pennsylv NW.
Morgan, Gery	
Morgan, Francis P	1230 Ninth st
Morgan, James D	919 Fifteenth s

General death rate—Continued.

WASHINGTON—Continued.

r of square.	White.			Colored.			Total.		
	Popula. tion.	Deaths	Death rate.	Popula- tion.	Deaths	Death rate.	Popula- tion.	Deaths	Death rate.
				8	1	125	8	1	125
	115	2	17.39	98	5	51.02	213	7	32.86
	103	2	19.41	123	1	8.13	226	3	13.27
	167			9			176		
	276	3	10.84	94	2	20.20	370	5	13.51
	230	4	17.39	86	3	34.88	316	7	22.15
	202	2	9.90	67			269	2	7.43
	133	2	15.38	82	1	12.19	215	3	13.86
	192	2	10.41	57	2	35.09	249	4	16.06
	338	3	8.87	41	1	9.75	379	4	10.55
	125	1	8	2			127	1	7.87
	184	3	16.30	2			186	3	16.13
	176	2	10.79	1			177	2	11.29
	39	1	25.64	10			49	1	20.40
	16	1	62.50	8			24	1	41.66
	56			4			60		
	186	4	21.50	1			187	4	21.38
	154	2	12.99				154	2	12.99
	249	4	60.65	2			251	4	15.93
	151	1	6.62	2			153	1	6.53
	57			3			60		
o. stables)									
	157			88	1	11.36	245	1	4.08
	92	2	21.74	233	5	21.03	325	7	21.55
				156	5	32.07	156	5	32.05
	136	2	14.70	98	2	20.40	234	4	17.10
	204	2	9.80	95	6	63.16	299	8	26.75
	418	10	23.92	13			431	10	23.06
	388	5	12.87	85			473	5	10.57
	181	3	16.57	248	2	8.06	429	5	11.65
	497	7	16.09	24	2	83.33	521	9	17.27
	359	6	16.68	18			377	6	15.91
	333	3	9	126	5	39.68	459	8	17.42
	363	3	8.26	305	7	23.27	668	10	14.97
	414	8	19.32	164	4	23.74	578	12	20.76
	263	4	15.20	26			289	4	13.84
	169	3	17.74	17			186	3	16.15
	271	8	29.52	34			305	8	4.39
	482	5	10.37	33			515	5	9.70
	443	6	13.54	19			462	6	12.91
	525	8	15.25	33			558	8	13.91
	146			9			155		
	309	2	7.47	46			315	2	6.34
	403	4	9.92	77	1	12.91	480	5	10.40
	50	1	20	1			51	1	19.60
	56	4	71.43	4			60	4	66.66
	15			7			22		
	37			1			38		
	344	1	2.09	6	1	166.66	350	2	5.71
	204	2	9.80				204	2	4.71
	156						156		
more and ac freight									
	371	5	13.48	294	10	34.01	665	15	22.50
	141			302	5	16.50	443	5	11.28
	229	3	13.12	95			324	3	92.59
	120	1	8.33		1		120	2	16.66
ehouses,									
on map)									
	202	4	19.80		2		202	6	29.70
	271	4	14.76		1		271	5	18.45
	176			56	4	71.43	232	4	17.24
acant)									
	66	1	15 17	23			89	1	11.24
	251	2	7.96	30			281	2	7.11
	167	1	5.98	6			173	1	5.77
	246	2	8.13	32			278	2	7.19
	302	7	23.17	47			349	7	20.05
	315	5	15.81	45			360	5	13.89
	236	2	8.47	12			248	2	8.06
	231	6	25.97	6			237	6	25.31
	185	4	21.62	6			191	4	20.90
	214	8	37.38	11			225	8	35.55
	53	2	37.73	10			63	2	31.74
	83	1	13.25	12	1	83.33	95	2	21.05
	6						6		

General death rate—Continued.

WASHINGTON—Continued.

Number of square.	White.			Colored.			Total.		
	Population.	Deaths	Death rate.	Population.	Deaths	Death rate.	Population.	Deaths	Death rate.
409	152	3	19.73	1			153	3	19.60
410	49						49		
411	148	4	27.03	202	4	19.80	350	8	22.85
412	102	1	98.04	25	1	40	127	2	15.74
413	143	1	6.99				143	1	
414	87	1	11.49	58	3	51.73	145	4	27.58
415	7	1	142.90	1			8	1	125
415 S. (foundry, etc.)									
416	128			34	1	29.40	162	1	61.75
417	245			18			263		
418 (not on map)									
419	200	2	12	94			294	2	6.80
420 N	85	1	11.96				85	1	11.76
420	135	1	7.33	4			130	1	7.19
421	201	4	19.90	5			206	4	19.41
422	123	1	81.30	33			156	1	6.41
423	140	2	14.28	6			146	2	13.69
424	341	5	14.66	18	1	55.55	359	6	16.71
425	256	1	90.62	31			287	1	3.48
426	226	6	26.54	6			232	6	25.86
427	135	1	7.40	23			158	1	6.32
428	139	2	43.88	6			145	2	13.10
429	169	3	17.75	12			181	3	16.51
430 (general post-office)									
431	45			16			61		
432	22	4	181.84				22	4	181.81
Agricultural Department and Smithsonian Institution	43						43		
433	148	1	6.75	1	1	1,000	149	2	13.42
434	62						62		
435	298	4	13.42	39			337	4	11.89
436	116	2	17.25	3			119	2	16.81
437	182	2	10.99	1			183	2	10.42
438	177	2	11.29		1		177	3	16.99
439	196						196		
439 S	5						5		
440	47			2			49		
441	349	6	17.19	241	1	4.14	590	7	11.86
442	209	7	33.49	276	7	25.72	485	14	28.86
443 (not on map)									
444	475	6	12.63	17			492	6	12.19
445	362	4	11.04	189	3	15.87	551	7	10.88
446	101	1	9.99	2			103	1	9.70
447	324	3	9.25	268	5	18.65	592	8	13.51
448	368	5	13.59	351	13	37.04	719	18	25.03
449	327	4	12.23	338	8	23.67	665	12	18.04
450	179	3	16.75	69			248	3	12.09
451	208	4	19.23	41			249	4	16.07
452	303	2	6.60	39	2	51.21	342	4	11.69
453	308	7	25.97	116	2	17.24	424	9	21.22
454	286	4	13.98	27	1	37.03	313	5	15.91
455	223	5	22.40	25	1	40	248	6	24.17
456	163	4	24.54	24			187	4	21.38
457	271	1	36.90	36	1	27.61	307	2	6.51
458	109			9	1	111.11	118	1	
459	88	1	11.36		1		88	2	22.73
460	110	1	9.09	8			118	1	8.46
461	110	3	27.27	7			117	3	25.64
462	404	2	4.95	20	1	50	424	3	7.07
463	161	2	12.42				161	2	12.42
463 S	57	1	17.54	5			62	1	16.12
464	90	2	22.22				90	2	22.22
465	484	4	8.26	117	1	8.54	601	5	8.31
466	168	2	11.90	7	1	142.86	175	3	17.14
467	363	3	8.26	8			371	3	8.08
468	219	6	27.39	100	1	10	319	7	21.94
469	339	6	17.69	120	2	16.66	459	8	17.43
470	170	4	23.53	60	1	16.66	230	5	21.73
471 W. (machine shop)									
471	154	3	19.48	131	2	15.27	285	5	17.54
472	133	2	15.04	1	1	1,000	134	3	22.38
473	43						43		
474 (not on map)									
475	103			71			174		

General death rate—Continued.

WASHINGTON—Continued.

r of square.	White.			Colored.			Total.		
	Population.	Deaths	Death rate.	Population.	Deaths	Death rate.	Population.	Deaths	Death rate.
.....	118	.....	.....	48	.....	.....	166	.....	.....
.....	86	.....	.....	.....	.....	.....	86	.....	.....
.....	155	1	6.45	.....	.....	.....	155	1	6.45
.....	134	2	14.92	145	4	27.68	279	6	21.50
.....	164	1	6.09	76	.....	.....	240	1	4.16
.....	75	.....	.....	27	.....	.....	102	.....	.....
.....	157	.....	.....	94	3	31.91	251	3	11.95
.....	229	1	4.36	24	1	41.66	253	2	7.90
.....	283	4	14.13	19	.....	.....	302	4	13.25
acant).....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	1	.....	.....	1	.....	.....
vacant).....	.....	1	.....	.....	.....	.....	.....	1	.....
.....	239	2	8.32	58	2	34.48	297	4	13.47
.....	180	5	27.21	4	1	250	184	6	32.60
.....	209	4	19.13	13	.....	.....	222	4	18.01
.....	181	3	16.02	7	.....	.....	188	3	15.90
.....	163	4	24.54	13	1	76.92	176	5	28.41
.....	126	1	7.93	22	.....	.....	148	1	6.75
.....	192	5	26.04	63	1	15.87	255	6	23.52
.....	269	3	11.16	21	1	47.61	290	4	13.79
.....	524	7	13.35	28	.....	.....	552	7	12.68
.....	387	4	10.33	92	2	21.74	479	6	12.52
.....	64	.....	.....	183	9	43.71	247	9	35.43
.....	308	6	19.61	64	1	15.62	370	7	18.92
.....	311	3	9.64	56	1	17.87	367	4	10.62
.....	123	3	24.39	34	.....	.....	157	3	19.11
.....	263	5	19.01	208	4	15.33	471	9	19.11
.....	276	7	25.36	25	2	80	301	9	23.25
.....	372	2	5.37	6	1	166.66	378	3	7.93
.....	414	4	9 66	46	.....	.....	460	4	8.69
.....	387	4	10.59	140	3	21.42	527	7	13.28
.....	239	6	22 30	90	5	55.55	359	11	30.64
.....	332	4	12.04	94	2	29.78	426	6	14.08
.....	249	2	8.03	158	1	6.32	407	3	7.37
.....	660	14	21.21	124	4	32.20	784	18	22.96
.....	595	10	16.95	.....	.....	.....	595	10	16.80
.....	6	2	333.33	.....	.....	.....	6	2	333.33
on map).....	.....	.....	.....	.....	.....	.....	.....	.....	.....
on map).....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	103	.....	.....	10	.....	.....	113	.....	.....
.....	157	3	19.11	111	2	18.92	268	5	18.65
acant).....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	81	3	37.03	.....	1	.....	81	4	49.38
.....	246	2	8.21	41	2	48.78	287	4	13.93
.....	103	1	9 70	253	3	11.85	356	4	11.24
.....	308	4	11.76	337	6	17.80	643	10	15.48
.....	323	2	6.50	172	2	11.62	495	4	8.08
.....	232	4	17.24	711	13	18.28	943	17	18.02
.....	348	7	20 11	585	14	23.93	933	21	22.50
.....	458	5	10.91	98	1	10.20	556	6	10.79
.....	241	2	82.90	103	2	19.41	344	4	11.62
.....	138	1	7.24	291	7	24.05	429	8	18.65
.....	387	7	18.09	320	5	15.62	707	12	16.06
.....	257	2	7.78	.....	2	.....	257	4	15.56
.....	356	6	6.80	34	1	29.41	390	7	17.90
.....	590	11	18.64	499	12	24.05	1,089	23	21.12
.....	11	.....	.....	2	.....	.....	13	.....	.....
.....	23	3	130.43	124	3	24.19	147	6	40.81
.....	43	2	46.98	155	2	12.90	198	4	20.20
.....	14	.....	.....	65	1	15.38	79	1	12.65
.....	200	4	20	82	1	12.11	282	5	17.73
.....	99	1	10.10	3	.....	.....	102	1	9.80
.....	51	.....	.....	148	5	33.79	199	5	25.13
.....	55	.....	.....	100	5	50	155	5	32.23
.....	156	3	19.23	72	1	13.88	228	4	17.50
.....	149	1	6.71	22	.....	.....	171	1	5.84
.....	255	4	15.68	52	1	19.22	307	5	16.27
.....	160	2	12.50	36	1	27.77	196	3	15.20
.....	176	4	22.61	6	.....	.....	182	4	21.98
.....	287	5	17.42	18	1	55.55	305	6	19.67
.....	397	5	12.59	32	2	62.50	429	7	16.31
.....	632	11	17.40	182	6	32.80	814	17	20.81
.....	311	4	12.86	99	1	10.10	410	5	12.22
.....	210	2	9.52	44	.....	.....	254	2	7.81
al Gardens..	2	.....	.....	3	.....	.....	5	.....	.....
.....	173	6	34.68	477	19	39.83	650	25	38.46
.....	196	6	30.61	284	7	24.64	480	13	27.09
.....	87	.....	.....	196	7	35.71	283	7	24.73

General death rate—Continued.

WASHINGTON—Continued.

Number of square.	White.			Colored.			Total.		
	Population.	Deaths	Death rate.	Population.	Deaths	Death rate.	Population.	Deaths	D r
537 (vacant)									
538	79	4	50.63	419	9	21.24	498	13	
539	130	2	15.38	451	12	26.61	581	14	
540	164	3	18.29	335	9	26.86	499	12	
541	224	4	17.85	427	14	32.79	651	18	
542	218	7	32.11				218	7	
543	140	1	7.14	214	6	28.03	354	7	
544	230	1	4.34	166	6	36.14	396	7	
545	300	4	13.33	333	9	27.02	633	13	
546	662	5	7.55	2			664	5	
546 E	24			47			71		
547 (vacant)									
Washington Barracks	475			20			495		
547 E. (vacant)									
548 (not on map)									
549 (not on map)									
550	98	1	10.20	22	1	45.45	120	2	
551	248	2	80.64	417	13	31.17	665	15	
552	4	2	500	17	1	58.82	21	3	
553 W	51	1	19.60	93			144	1	
553	129	1	7.75	488	16	32.79	617	17	
554 W	2	3					2	3	
554	146			173	9	52.02	319	9	
555	228	5	21.49	18			246	5	
556	24			177	6	33.89	201	6	
557	200	6	30	701	18	29.38	901	24	
558	53	2	37.75	239	9	37.65	292	11	
559	219	4	18.26	266	6	22.55	485	10	
560	106	1	9.43	14	1	71.43	120	2	
561	148	3	20.27	9			157	3	
562	142			45	1	22.22	187	1	
562 S	171	1	5.84	76			247	1	
563 N	113	1	8.84				113	1	
563	206	1	4.85	26			232	1	
564	156	3	19.29	117	6	51.71	273	9	
565	64	6	93.59				64	6	
566	185			49	2	40.82	234	2	
567	203	2	9.85	59	1	16.27	262	3	
568	308	2	6.49	21			329	2	
569	206	5	24.71	211	9	42.65	417	14	
570	355	5	14.08	26			381	5	
571	319	4	12.54	72	3	41.66	391	7	
572	141	4	28.37	56	1	17.67	197	5	
572 S	183			11			194		
573	129	2	15.50	4			133	2	
574	203	5	24.13	2			205	5	
575	401	7	17.45	30			431	7	
576	45			121	1	8.26	166	1	
577	77			266	4	15.04	343	4	
578	24	1	41.60	48	2	41.66	72	3	
579	19			219	5	22.82	238	5	
580 N. (vacant)									
580	69	3	43.48	224	10	44.64	293	13	
581	89	5	56.18	316	5	15.82	405	10	
582	59			297	7	23.57	356	7	
583 N. (vacant)									
583	34	3	88.24	330	9	27.27	364	12	
584	28	4	142.80	202	1	4.99	230	5	
585	47	2	42.55	343	6	17.78	390	8	
586	43	1	23.25	348	8	23	391	9	
587	27	1	37.04	373	9	24.13	400	10	
588	25			253	5	19.76	278	5	
589	13	2	153.70	291	2	6.87	304	4	
590	11			203	5	24.63	214	5	
590 E. (vacant)									
591	19	2	105.20	168	4	23.81	187	6	
592	7			180	4	22.22	187	4	
593				145	4	27.59	145	4	
594	3	1	333.33	238	5	21.01	241	6	
595				76	1	13.16	76	1	
596	34			130	6	46.15	164	6	
597 W	61	1	16.39	107	3	28.04	168	4	
597	47	1	21.29	184	5	27.17	231	6	
598	98	1	10.20	30	2	66.66	128	3	
599	6			88	7	79.43	94	7	
600 (vacant)									
601	27	1	37.03	16	1	62.50	43	2	

General death rate—Continued.

WASHINGTON—Continued.

Number of square.	White.			Colored.			Total.		
	Population.	Deaths	Death rate.	Population.	Deaths	Death rate.	Population.	Deaths	Death rate.
602	8						8		
603	2			28			30		
604 (vacant)									
605 (vacant)									
606 (vacant)									
607	6						6		
608 (vacant)									
609	19			13			32		
610	2						2		
611	14			43	1	23.25	57	1	17.54
612 (vacant)									
613 (vacant)									
614	47	1	21.27	1			48	1	20.83
615	105	2	19.04	104			209	2	9.57
616	171	2	11.70	239	3	12.55	410	5	12.19
617	143	1	7	83	3	36.14	226	4	17.69
618	183	5	27.32	25	1	40	208	6	28.80
619	112	4	35.71	4			116	4	34.47
620	414	3	7.25	988	32	32.39	1,402	35	24.90
621	462	8	17.32	339	5	14.77	801	13	16.22
622	255	2	7.84	4	1	250	259	3	12.36
623 W	157	1	6.36	15			172	1	5.81
623	660	12	18.18	504	13	25.79	1,164	25	21.39
624 W. (vacant)									
624	300	1	3.33	255	7	27.45	555	8	14.23
625	273	5	18.32	97	3	30.93	370	8	21.62
626	380	4	10.53	33	2	60.60	413	6	14.53
627	15			2			17		
628	319	4	12.54	392	4	10.20	711	8	11.25
629	212	1	4.71	46			258	1	3.87
630	77	4	51.95	60			137	4	29.90
631	25			7			32		
632 (Baltimore and Ohio depot)									
633	294	5	17	71			365	5	13.69
634	271	3	11.07	21	1	47.62	292	4	13.70
635	153	6	39.21	64	3	46.87	217	9	41.48
635 S				119	1	8.40	119	1	8.40
636	3	1	333.33	1			4	1	
637	14	1	71.43	27	2	74.07	41	3	73.17
638	21	1	47.62	348	3	8.62	369	4	10.84
639	18						18		
640	9			238	10	42.02	247	10	40.48
641	186	3	16.13	19			205	3	14.63
642 N. (vacant)									
642	34	3	88.23	226	8	35.40	260	11	42.31
642 E	70	2	28.57				70	2	28.57
643	33			254	2	7.87	287	2	6.96
643 E				45	3	66.66	45	3	66.66
643 S. (vacant)									
644				60	3	50	60	3	50
645 W				149	5	33.58	149	5	36.56
645	45			119	1	8.40	164	1	6.09
646 (vacant)									
647	2						2		
648	5	1	200				5	1	200
649 (vacant)					2			2	
650 N	6			90			96		
650	26	1	38.46	484	8	16.53	510	9	17.65
651	17				3		17	3	17.65
652	79	2	25.31	121	4	33.06	200	6	30
653	107	5	46.73	32	1	31.25	139	6	43.16
654	28			4			32		
655 (vacant)									
656	70	1	14.29				70	1	14.28
657 (vacant)									
658	13	1	76.92	3	1	333.33	16	2	125
659 (not on map)									
660	4						4		
661	7						7		
662	19						19		
662 E				37			37		
663	9						9		
664	28			7	1	142.86	35	1	28.59
664 E	8			2			10		
665	4			1	3		5	3	600
666 (vacant)									
667				7			7		

General death rate—Continued.

WASHINGTON—Continued.

Number of square.	White.			Colored.			Total.		
	Population.	Deaths	Death rate.	Population.	Deaths	Death rate.	Population.	Deaths	
134	202	2	9.90	58	1	17.24	260	3	
135	18			2			20		
136	74			12			86		
137 N. (vacant)									
137	117	1	8.55	20			137	1	
138	110	2	17.24	25			141	2	
139	268	1	3.74	65	1	15.38	333	2	
140	181	4	22.10	511	15	29.35	692	19	
141	169	1	5.62	42			241	1	
142	151	1	6.62	21			172	1	
143	55	1	18.18	6			61	1	
144	5			134	5	37.31	139	5	
145 (vacant)									
146 (vacant)									
147				28			28		
148 (not on map)									
149	18						18		
150	83			187	4	21.38	270	4	
151	107			33	2	60.60	140	2	
152	254	4	15.75	198	1	5.05	452	5	
153	163			36			199		
153 S. (vacant)									
154	45	1	22.22	131	2	15.27	176	3	
155	314	3	9.55	96	1	10.40	410	4	
156	390	4	10.25	81			471	4	
157	206	3	14.56	152	1	6.57	358	4	
158	207			90	1	11.11	297	1	
159	262	1	3.81	114			376	1	
160	60			9			69		
161	97	1	10.30	123	2	16.26	220	3	
162	260	3	11.54	39			299	3	
163	112	1	8.93	206	5	24.27	318	6	
164	181	4	22.10	14			195	4	
165	81	1	12.34	23			104	1	
166	226	4	17.69	42	2	47.5	268	6	
167	81	1	12.35	37			118	1	
168	174	2	11.49	7	1	142.8	181	3	
169	90	1	11.11	15			105	1	
170	147	3	20.40	38	1	26.3	185	4	
171	16	1	62.50	88	1	11.3	104	2	
172	9			146	3	20.5	155	3	
173				7			7		
173 S.				8			8		
174	45	2	44.44	45	3	22.2	90	5	
175	24			6			30		
176	59			76	2	26.3	135	2	
177 N	37	1	27.02	16			53	1	
177	145	1	6.89	36			181	1	
178	211	2	9.47	57			268	2	
179	337			231	1	4.33	568	1	
180	170	2	11.76	199	3	15.07	369	5	
181	207	3	14.49	171	1	5.25	378	4	
181 S.	25			4			29		
182 N	14			3			17		
182	107			116			223		
183	140	2	13.69	377	14	37.1	523	16	
184	101	1	9.01	158	4	25.3	259	5	
185	120			24			144		
186	60			6			66		
187 (not on map)									
188 (vacant)									
188 S. (vacant)									
189 N	41			11			52		
189	89			24			113		
190	370	4	10.80	26			396	4	
191	251	3	11.95	199	3	15.07	450	6	
192	141	3	21.26	33			174	3	
193	295	3	10.16	41			336	3	
194	150	8	53.33	242	1	4.13	392	9	
195	329	4	12.25	131	1	7.63	460	5	
195 S.	23						23		
196 N	20			16			36		
196	72	2	27.77	223	3	13.45	295	5	
197	93	6	64.30	290	3	10.34	383	9	
198	142			136	1		278	1	
199	275	1	3.63	59			334	1	
200	335			5			340		
201 (not on map)									

General death rate—Continued.

WASHINGTON—Continued.

Number of square.	White.			Colored.			Total.		
	Population	Deaths	Death rate.	Population.	Deaths	Death rate.	Population.	Deaths	Death rate.
729 (Congressional Library)		1						1	
730 (Congressional Library)									
731 (not on map)									
732	496	12	24.19	51	1	20	547	13	23.76
733	221	4	18.09	80	3	37.50	301	7	23.25
734	162	3	18.52	137	1	7.30	299	4	13.37
735	124	2	16.12	3	1	333.33	127	3	23.62
736	200	2	10	4	1	250	204	3	14.70
737	12	1	83.33	262	4	15.26	274	5	18.25
738	37			30	1	33.33	67	1	14.92
739 (vacant)									
740	145	2	13.89	4			149	2	13.43
741	9	1	111.11	62	1	16.13	71	2	28.17
742	83			48			131		
743 N. (vacant)									
743	276	7	25.36	271	6	22.14	547	13	22.76
744	246	7	28.45	4	2	500	250	9	32
744 S. (vacant)									
745 (not on map)									
746 (not on map)									
747 N. (vacant)									
747 (vacant)									
748	58	1	17.24	60	2	33.33	118	3	25.42
749	142	5	35.21	36	1	27.77	178	6	33.71
750	171	5	29.24				171	5	29.24
751	212			45			257		
752	257	4	15.56	7	1	142.86	264	5	18.94
753	313	3	9.58	180	3	16.66	493	6	12.17
754	276	1	3.62	2			278	1	35.59
755	143	3	20.98	98	3	30.61	241	6	24.90
756	103	1	9.71	7			110	1	90.90
757	206	3	14.56	104	3	28.84	310	6	19.39
758	116	3	25.86	1			117	3	25.64
759	165	4	24.24	68	3	44.12	233	7	30.09
760	247	4	16.19	22			269	4	14.87
761	165	3	18.18	12	1	83.33	177	4	22.65
762	139	1	7.19	48	2	41.68	187	3	16.04
763	132	2	15.15	14	1	71.43	146	3	20.52
764	155	1	6.45		1		155	2	12.93
765	16						16		
766	114	1	8.77	16			130	1	7.69
767	134	2	14.92	21			155	2	12.93
768	75	1	12.12		1		75	2	26.66
769	121	3	24.71	1			122	3	24.69
770	161	4	11.12	78	2	25.64	239	6	25.10
771	27			5			32		
772 N	6						6		
772	31						31		
773 (vacant)									
774	154	3	19.41	9			163	3	18.40
775	89						89		
776	215	1	4.65	14			229	1	4.37
777	186	1	5.37	4			190	1	5.26
778	110			78			188		
779	330	8	24.24	55			385	8	20.77
780	231			10			241		
781	101	2	19.80	1			102	2	19.60
782	185	6	32.43	13			198	6	50.50
783	53			52			105		
784	150	2	13.33	30			180	2	11.11
785	196	2	10.20	77	3	39	273	5	18.32
786	172	1	5.81	67			239	1	4.14
787	182	1	5.49	12			194	1	5.15
788	190	1	5.15	24	1	41.66	214	2	9.34
789	77	2	27.24	1			78	2	25.64
790	110	2	18.18	19			129	2	15.50
791	187	1	5.34	29	1	34.48	216	2	13.88
792	49	1	20.40	53	2	37.75	102	3	29.41
793	87	1	11.49	113	3	26.55	200	4	20.00
794	26			1			27		
795	75	2	26.66	109	1	9.17	184	3	6.30
796	154	1	6.42	19	1	52.63	173	2	11.56
797	39			192	1	5.20	231	1	4.33
798	134	1	7.46	41	2	48.79	175	3	17.14
799	116	3	25.86	34			150	3	20

General death rate—Continued.

WASHINGTON—Continued.

Number of square.	White.			Colored.			Total		
	Population.	Deaths	Death rate.	Population.	Deaths	Death rate.	Population	Deaths	De ra
269 (Baltimore and Potomac R. R. freight yards)									
270 (Baltimore and Potomac R. R. freight yards)									
271	245	6	24.48	355	7	19.73	600	13	
272	24						24		
273	106	3	28.30	57	2	35.09	163	5	
274	187	3	16.03	398	13	32.66	585	16	
275	179	3	16.65	120	2	16.66	299	5	
276	204	5	24.51	135	5	37.03	339	10	
277	199	1	5.02	161	4	24.84	360	5	
277 S	37			7			44		
278 N				11			11		
278	154	4	25.98	63	1	15.86	217	5	
279	178	1	5.61	87	2	22.99	265	3	
280	253	2	7.90	49			302	2	
281	261	1	3.83	64			325	1	
282	170	1	5.88	58	1	17.07	228	2	
283	221	3	13.57	35			256	3	
284	202	1	4.90	22			224	1	
285	341	6	17.59	34			375	6	
286	212	2	9.42	65	2	30.70	277	4	
287	178			16			194		
288	368	4	1.08	21	1	47.05	389	5	
289	151	3	19.86	12			163	3	
290	207	1	4.83	39			246	1	
291	145	2	13.79	3			148	2	
292	60			21			81		
293	142			67			209		
294	13	1	76.92		1		13	2	
295				6			6		
296	322	5	15.52	61	1	16.38	383	6	
297	249	4	16.06	55	1	18	304	5	
298 (Baltimore and Potomac freight yard)		3	28.30				106	3	
299	106								
300 (Southern R. R. shed)									
301 (not on map)									
302	80	2	25	231	6	25.90	311	8	
303	47			157	6	38.21	204	6	
304	46			6			52		
305	55			140	2	14.28	195	2	
306	144	3	20.83	124	1	8.06	268	4	
307	60	1	16.66	44	1	22.72	104	2	
308	8			120	2	16.66	128	2	
309	17			297	8	26.19	314	8	
310	70			96	2	20.83	166	2	
311	32	2	62.09	2			34		
312	164			10	1	100	174	1	
313	204	1	4.90	87	3	34.48	291	4	
314	172	1	5.81	4			176	1	
315	224			33			257		
316	194			42			236		
317	112	2	17.85	154	3	19.49	266	5	
318	273	1	3.66	22			295	1	
319	377	4	10.61	13			390	4	
320	67	2	29.89	6			73	2	
321	92	2	21.74	22			114	2	
322	235			2			237		
323 (new post-office)									
324	31	1	32.26	29			60	1	
325	149			5			154		
326	128	1	7.89	5	2	400	133	3	
327	157	1	6.36				157	1	
328	82	1	12.19				82	1	
329	5			1			6		
330 (vacant)									
331	20			294	5	17	314	5	
332	48			207	3	14.49	255	3	
333	45			189	4	21.16	234	4	
334 N	54			22			76		
334	52			52			104		
335	91			215	3	13.95	306	3	
336	13			315	5	15.87	328	5	

General death rate—Continued.

WASHINGTON—Continued.

quare.	White.			Colored.			Total.		
	Popula. tion.	Deaths	Death rate.	Popula- tion.	Deaths	Death rate.	Popula- tion.	Deaths	Death rate.
.....				8	1	125	8	1	125
.....	115	2	17.39	98	5	51.02	213	7	32.86
.....	103	2	19.41	123	1	8.13	226	3	13.27
.....	167			9			176		
.....	276	3	10.84	94	2	20.20	370	5	13.51
.....	230	4	17.39	86	3	34.88	316	7	22.15
.....	202	2	9.90	67			269	2	7.43
.....	133	2	15.38	82	1	12.19	215	3	13.86
.....	192	2	10.41	57	2	35.09	249	4	16.06
.....	338	3	8.87	41	1	9.75	379	4	10.55
.....	125	1	8	2			127	1	7.87
.....	184	3	16.30	2			186	3	16.13
.....	176	2	10.79	1			177	2	11.29
.....	39	1	25.64	10			49	1	20.40
.....	16	1	62.50	8			24	1	41.66
.....	56			4			60		
.....	186	4	21.50	1			187	4	21.38
.....	154	2	12.99				154	2	12.99
.....	249	4	60.65	2			251	4	15.93
.....	151	1	6.62	2			153	1	6.53
ables).	57			3			60		
.....	157			88	1	11.36	245	1	4.08
.....	92	2	21.74	233	5	21.03	325	7	21.55
.....				156	5	32.07	156	5	32.05
.....	136	2	14.70	98	2	20.40	234	4	17.10
.....	204	2	9.80	95	6	63.16	299	8	26.75
.....	418	10	23.92	13			431	10	23.06
.....	388	5	12.87	85			473	5	10.57
.....	181	3	16.57	248	2	8.06	429	5	11.65
.....	497	7	16.09	24	2	83.33	521	9	17.27
.....	359	6	16.68	18			377	6	15.91
.....	333	3	9	126	5	39.68	459	8	17.42
.....	363	3	8.26	305	7	23.27	668	10	14.97
.....	414	8	19.32	164	4	23.74	578	12	20.76
.....	263	4	15.20	26			289	4	13.84
.....	169	3	17.74	17			186	3	16.15
.....	271	8	29.52	34			305	8	4.30
.....	482	5	10.37	33			515	5	9.70
.....	443	6	13.54	19			462	6	12.91
.....	525	8	15.25	33			558	8	13.91
.....	146			9			155		
.....	269	2	7.47	46			315	2	6.34
.....	403	4	9.92	77	1	12.91	480	5	10.40
.....	50	1	20	1			51	1	19.60
.....	56	4	71.43	4			60	4	66.66
.....	15			7			22		
.....	37			1			38		
.....	344	1	2.09	6	1	166.66	350	2	5.71
.....	204	2	9.80				204	2	4.71
e and eight	156						156		
.....	371	5	13.48	294	10	34.01	665	15	22.50
.....	141			302	5	16.50	443	5	11.28
.....	220	3	13.12	95			324	3	92.59
uses.	120	1	8.33		1		120	2	16.66
ap)									
.....	202	4	19.80		2		202	6	29.70	
.....	271	4	14.76		1		271	5	18.45
.....	176			56	4	71.43	232	4	17.24
)									
.....	66	1	15.17	23			89	1	11.24
.....	251	2	7.96	30			281	2	7.11
.....	167	1	5.98	6			173	1	5.77
.....	246	2	8.13	32			278	2	7.19
.....	302	7	23.17	47			349	7	20.05
.....	315	5	15.81	45			360	5	13.89
.....	236	2	8.47	12			248	2	8.06
.....	231	6	25.97	6			237	6	25.31
.....	185	4	21.62	6			191	4	20.90
.....	214	8	37.38	11			225	8	35.55
.....	53	2	37.73	10			63	2	31.74
.....	83	1	13.25	12	1	83.33	95	2	21.05
.....	6						6		

General death rate—Continued.

WASHINGTON—Continued.

Number of square.	White.			Colored.			Total.		
	Population.	Deaths	Death rate.	Population.	Deaths	Death rate.	Population.	Deaths	Death rate.
409	152	3	19.73	1			153	3	19.60
410	49						49		
411	148	4	27.03	202	4	19.80	350	8	22.85
412	102	1	98.04	25	1	40	127	2	15.74
413	143	1	6.99				143	1	
414	87	1	11.49	58	3	51.73	145	4	27.58
415	7	1	142.90	1			8	1	125
415 S. (foundry, etc.)									
416	128			34	1	29.40	162	1	61.73
417	245			18			263		
418 (not on map)									
419	200	2	12	94			294	2	6.80
420 N	85	1	11.96				85	1	11.76
420	135	1	7.33	4			139	1	7.19
421	201	4	19.90	5			206	4	19.41
422	123	1	81.30	33			156	1	6.41
423	140	2	14.28	6			146	2	13.69
424	341	5	14.66	18	1	55.55	359	6	16.71
425	256	1	90.62	31			287	1	3.48
426	226	6	26.54	6			232	6	25.86
427	135	1	7.40	23			158	1	6.32
428	139	2	43.88	6			145	2	13.10
429	169	3	17.75	12			181	3	16.51
430 (general post-office)									
431	45			16			61		
432	22	4	181.84				22	4	181.81
Agricultural Department and Smithsonian Institution	43						43		
433	148	1	6.75	1	1	1,000	149	2	13.42
434	62						62		
435	298	4	13.42	39			337	4	11.86
436	116	2	17.25	3			119	2	16.81
437	182	2	10.99	1			183	2	10.92
438	177	2	11.29		1		177	3	16.99
439	196						196		
439 S.	5						5		
440	47			2			49		
441	349	6	17.19	241	1	4.14	590	7	11.86
442	209	7	33.49	276	7	25.72	485	14	28.86
443 (not on map)									
444	475	6	12.63	17			492	6	12.19
445	362	4	11.04	189	3	15.87	551	7	10.88
446	101	1	9.99	2			103	1	9.70
447	324	3	9.25	268	5	18.65	592	8	13.51
448	368	5	13.59	351	13	37.04	719	18	25.03
449	327	4	12.23	338	8	23.67	665	12	18.04
450	179	3	16.75	69			248	3	12.09
451	208	4	19.23	41			249	4	16.06
452	303	2	6.60	39	2	51.21	342	4	11.69
453	308	7	25.97	116	2	17.24	424	9	21.22
454	286	4	13.98	27	1	37.03	313	5	15.91
455	223	5	22.40	25	1	40	248	6	24.17
456	163	4	24.54	24			187	4	21.38
457	271	1	36.90	36	1	27.61	307	2	6.51
458	100			9	1	111.11	118	1	
459	88	1	11.36		1		88	2	22.73
460	110	1	9.09	8			118	1	8.46
461	110	3	27.27	7			117	3	25.64
462	404	2	4.95	20	1	50	424	3	7.07
463	161	2	12.42				161	2	12.42
463 S.	57	1	17.54	5			62	1	16.12
464	90	2	22.22				90	2	22.22
465	484	4	8.26	117	1	8.54	601	5	8.32
466	168	2	11.90	7	1	142.86	175	3	17.14
467	363	3	8.26	8			371	3	8.08
468	219	6	27.39	100	1	10	319	7	21.94
469	339	6	17.69	120	2	16.66	459	8	17.43
470	170	4	23.53	60	1	16.66	230	5	21.73
471 W. (machine shop)									
471	154	3	19.48	131	2	15.27	285	5	17.54
472	133	2	15.04	1	1	1,000	134	3	22.38
473	43						43		
474 (not on map)									
475	103			71			174		

General death rate—Continued.

WASHINGTON—Continued.

r of square.	White.			Colored.			Total.		
	Population.	Deaths	Death rate.	Population.	Deaths	Death rate.	Population.	Deaths	Death rate.
	118			48			166		
	86						86		
	155	1	6.45				155	1	6.45
	134	2	14.92	145	4	27.68	279	6	21.50
	164	1	6.09	76			240	1	4.16
	75			27			102		
	157			94	3	31.91	251	3	11.95
	229	1	4.36	24	1	41.66	253	2	7.90
	283	4	14.13	19			302	4	13.25
acant)									
				1			1		
vacant)		1						1	
	239	2	8.32	58	2	34.48	297	4	13.47
	180	5	27.21	4	1	250	184	6	32.60
	209	4	19.13	13			222	4	18.01
	181	3	16.02	7			188	3	15.90
	163	4	24.54	13	1	76.92	176	5	28.41
	126	1	7.93	22			148	1	6.75
	192	5	26.04	63	1	15.87	255	6	23.52
	209	3	11.16	21	1	47.61	230	4	13.79
	524	7	13.35	28			552	7	12.68
	387	4	10.33	92	2	21.74	479	6	12.52
	64			183	9	43.71	247	9	36.43
	308	6	19.61	64	1	15.62	370	7	18.92
	311	3	9.64	56	1	17.87	367	4	10.62
	123	3	24.39	34			157	3	19.11
	263	5	19.01	208	4	15.33	471	9	19.11
	276	7	25.36	25	2	80	301	9	23.25
	372	2	5.37	6	1	166.66	378	3	7.93
	414	4	9 66	46			460	4	8.69
	387	4	10.59	140	3	21.42	527	7	13.28
	269	6	22 30	90	5	55.55	359	11	30.64
	352	4	12.04	94	2	29.78	426	6	14.08
	249	2	8.03	158	1	6.32	407	3	7.37
	660	14	21.21	124	4	32.20	784	18	22.96
	595	10	16.95				595	10	16.80
	6	2	333.33				6	2	333.33
on map)									
on map)									
	103			10			113		
	157	3	19.11	111	2	18.92	268	5	18.65
acant)									
	81	3	37.03		1		81	4	49.38
	246	2	8.21	41	2	48.78	287	4	13.93
	103	1	9 70	253	3	11.85	356	4	11.24
	306	4	11.76	337	6	17.80	643	10	15.48
	323	2	6.50	172	2	11.62	495	4	8.08
	232	4	17.24	711	13	18.28	943	17	18.02
	348	7	20 11	585	14	23.93	933	21	22.50
	458	5	10.91	98	1	10.20	556	6	10.79
	241	2	82.90	103	2	19.41	344	4	11.62
	138	1	7.24	291	7	24.05	429	8	18.65
	387	7	18.09	320	5	15.62	707	12	16.66
	257	2	7.78		2		257	4	15.56
	356	6	6.80	34	1	29.41	390	7	17.90
	590	11	18.64	499	12	24.05	1,089	23	21.12
	11			2			13		
	23	3	130.43	124	3	24.19	147	6	40.81
	43	2	46.96	155	2	12.90	198	4	20.20
	14			65	1	15.38	79	1	12.65
	200	4	20	82	1	12.11	282	5	17.73
	99	1	10.10	3			102	1	9.80
	51			148	5	33.79	199	5	25.13
	55			100	5	50	155	5	32.25
	156	3	19.23	72	1	13.33	228	4	17.50
	149	1	6.71	22			171	1	5.84
	255	4	15.68	52	1	19.22	307	5	16.27
	160	2	12.50	36	1	27.77	196	3	15.30
	176	4	22.61	6			182	4	21.98
	287	5	17.42	18	1	55.55	305	6	19.67
	397	5	12.59	32	2	62.50	429	7	16.31
	632	11	17.40	182	6	32.80	814	17	20.81
	311	4	12.86	99	1	10.10	410	5	12.22
	210	2	9.52	44			254	2	7.81
l Gardens	2			3			5		
	173	6	34.68	477	19	39.83	650	25	38.46
	196	6	30.61	284	7	24.64	480	13	27.09
	87			196	7	35.71	283	7	24.73

General death rate—Continued.

WASHINGTON—Continued.

Number of square.	White.			Colored.			Total.		
	Population.	Deaths	Death rate.	Population.	Deaths	Death rate.	Population.	Deaths	Death rate.
537 (vacant)									
538	79	4	50.63	419	9	21.24	498	13	26.10
539	130	2	15.38	451	12	26.61	581	14	24.10
540	164	3	18.29	335	9	26.86	499	12	24.05
541	224	4	17.85	427	14	32.79	651	18	27.65
542	218	7	32.11				218	7	32.11
543	140	1	7.14	214	6	28.03	354	7	19.77
544	230	1	4.34	166	6	36.14	396	7	17.68
545	300	4	13.33	333	9	27.02	633	13	20.54
546	662	5	7.55	2			664	5	7.53
546 E	24			47			71		
547 (vacant)									
Washington Barracks	475			20			495		
547 E. (vacant)									
548 (not on map)									
549 (not on map)									
550	98	1	10.20	22	1	45.45	120	2	16.66
551	248	2	80.64	417	13	31.17	665	15	22.55
552	4	2	500	17	1	58.82	21	3	14.29
553 W	51	1	19.60	93			144	1	69.44
553	129	1	7.75	488	16	32.79	617	17	27.55
554 W	2	3					2	3	
554	146			173	9	52.02	319	9	28.21
555	228	5	21.49	18			246	5	20.33
556	24			177	6	33.89	201	6	29.85
557	200	6	30	701	18	29.38	901	24	26.13
558	53	2	37.75	239	9	37.65	292	11	37.67
559	219	4	18.26	266	6	22.55	485	10	20.62
560	106	1	9.43	14	1	71.43	120	2	16.66
561	148	3	20.27	9			157	3	19.11
562	142			45	1	22.22	187	1	53.48
562 S	171	1	5.84	76			247	1	4.05
563 N	113	1	8.84				113	1	8.85
563	206	1	4.85	26			232	1	43.10
564	156	3	19.29	117	6	51.71	273	9	32.97
565	64	6	93.59				64	6	93.75
566	185			49	2	40.82	234	2	85.47
567	203	2	9.85	59	1	16.27	262	3	11.45
568	308	2	6.49	21			329	2	6.08
569	206	5	24.71	211	9	42.65	417	14	33.60
570	355	5	14.08	26			381	5	12.98
571	319	4	12.54	72	3	41.66	391	7	17.90
572	141	4	28.37	56	1	17.67	197	5	25.38
572 S	183			11			194		
573	129	2	15.50	4			133	2	15.04
574	203	5	24.13	2			205	5	24.39
575	401	7	17.45	30			431	7	16.24
576	45			121	1	8.26	166	1	6.02
577	77			266	4	15.04	343	4	11.66
578	24	1	41.60	48	2	41.66	72	3	41.67
579	19			219	5	22.82	238	5	21.01
580 N. (vacant)									
580	69	3	43.48	224	10	44.64	293	13	44.37
581	89	5	56.18	316	5	15.82	405	10	24.69
582	59			297	7	23.57	356	7	19.72
583 N. (vacant)									
583	34	3	88.24	330	9	27.27	364	12	32.96
584	28	4	142.80	202	1	4.99	230	5	21.74
585	47	2	42.55	343	6	17.78	390	8	20.25
586	43	1	23.25	348	8	23	391	9	23.02
587	27	1	37.04	373	9	24.13	400	10	25
588	25			253	5	19.76	278	5	17.97
589	13	2	153.70	291	2	6.87	304	4	13.12
590	11			203	5	24.63	214	5	23.36
590 E. (vacant)									
591	19	2	105.20	168	4	23.81	187	6	34.76
592	7			180	4	22.22	187	4	21.38
593				145	4	27.59	145	4	27.59
594	3	1	333.33	238	5	21.01	241	6	24.89
595				76	1	13.16	76	1	13.16
596	34			130	6	46.15	164	6	37.80
597 W	61	1	16.39	107	3	28.04	168	4	23.81
597	47	1	21.29	184	5	27.17	231	6	25.97
598	98	1	10.20	30	2	66.66	128	3	23.43
599	6			88	7	79.43	94	7	74.47
600 (vacant)									
601	27	1	37.03	16	1	62.50	43	2	46.50

General death rate—Continued.

WASHINGTON—Continued.

Number of square.	White.			Colored.			Total.		
	Population.	Deaths	Death rate.	Population.	Deaths	Death rate.	Population.	Deaths	Death rate.
602	8						8		
603	2			28			30		
604 (vacant)									
605 (vacant)									
606 (vacant)									
607	6						6		
608 (vacant)									
609	19			13			32		
610	2						2		
611	14			43	1	23.25	57	1	17.54
612 (vacant)									
613 (vacant)									
614	47	1	21.27	1			48	1	20.83
615	105	2	19.04	104			209	2	9.57
616	171	2	11.70	239	3	12.55	410	5	12.19
617	143	1	7	83	3	36.14	226	4	17.69
618	183	5	27.32	25	1	40	208	6	28.80
619	112	4	35.71	4			116	4	34.47
620	414	3	7.25	988	32	32.39	1,402	35	24.90
621	462	8	17.32	339	5	14.77	801	13	16.22
622	255	2	7.84	4	1	250	259	3	12.36
623 W	157	1	6.36	15			172	1	5.81
623	660	12	18.18	504	13	25.79	1,164	25	21.39
624 W. (vacant)									
624	300	1	3.33	255	7	27.45	555	8	14.23
625	273	5	18.32	97	3	30.93	370	8	21.62
626	380	4	10.53	33	2	60.60	413	6	14.53
627	15			2			17		
628	319	4	12.54	392	4	10.20	711	8	11.25
629	212	1	4.71	46			258	1	3.87
630	77	4	51.95	60			137	4	29.90
631	25			7			32		
632 (Baltimore and Ohio depot)									
633	294	5	17	71			365	5	13.69
634	271	3	11.07	21	1	47.62	292	4	13.70
635	153	6	39.21	64	3	46.87	217	9	41.48
635 S.				119	1	8.40	119	1	8.40
636	3	1	333.33	1			4	1	
637	14	1	71.43	27	2	74.07	41	3	73.17
638	21	1	47.62	348	3	8.62	369	4	10.84
639	18						18		
640	9			238	10	42.02	247	10	40.48
641	186	3	16.13	19			205	3	14.63
642 N. (vacant)									
642	34	3	88.23	226	8	35.40	260	11	42.31
642 E	70	2	28.57				70	2	28.57
643	33			254	2	7.87	287	2	6.96
643 E				45	3	66.66	45	3	66.66
643 S. (vacant)									
644				60	3	50	60	3	50
645 W				149	5	33.58	149	5	36.56
645	45			119	1	8.40	164	1	6.09
646 (vacant)									
647	2						2		
648	5	1	200				5	1	200
649 (vacant)					2			2	
650 N	6			90			96		
650	26	1	38.46	484	8	16.53	510	9	17.65
651	17				3		17	3	17.65
652	79	2	25.31	121	4	33.06	200	6	30
653	107	5	46.73	32	1	31.25	139	6	43.16
654	28			4			32		
655 (vacant)									
656	70	1	14.29				70	1	14.28
657 (vacant)									
658	13	1	76.92	3	1	333.33	16	2	125
659 (not on map)									
660	4						4		
661	7						7		
662	19						19		
662 E				37			37		
663	9						9		
664	28			7	1	142.86	35	1	28.59
664 E	8			2			10		
665	4			1	3		5	3	600
666 (vacant)									
667				7			7		

General death rate—Continued.

WASHINGTON—Continued.

Number of square.	White			Colored.			Total.		
	Population.	Deaths	Death rate.	Population.	Deaths	Death rate.	Population.	Deaths	Death rate.
667 E. (vacant)									
667 S.	9			1			10		
667 SE.				9			9		
668	109	4	36.69	35			144	4	27.77
669	204	2	9.80	84	2	23.82	288	4	13.88
670 (vacant)									
671	78						78		
672	164	1	6.09	47	2	42.55	211	3	14.21
673 (vacant)									
674	582	9	15.49	261	13	49.81	843	22	26.21
675	1,063	14	13.17	20			1,083	14	12.94
676	393	8	20.35	27			420	8	19.05
677	494	9	18.22	354	13	36.75	848	22	25.94
678 (lumber yard)									
679	29	1	34.48	19			48	1	20.83
680	17	1	58.82				17	1	58.82
681 (Baltimore and Ohio freight yard)									
682	118	3	25.42	3	1	333.33	121	4	33.06
683	89			6			95		
684	186	2	10.75	14	1	71.43	200	3	10.50
685	374	1	2.67	63			437	1	2.28
686	222	1	4.50	132	2	14.59	354	3	8.47
687 (not on map)									
688 (not on map)									
689	117			17	1	58.82	134	1	7.46
690	231	1	4.34	81			312	1	32.05
691	111	2	18.02	9			120	2	16.66
692	96	1	10.41	27			123	1	8.12
693	297	3	10.10	66			363	3	8.26
694	191	1	5.23	68			259	1	3.85
695 NW. (Baltimore and Potomac freight depot)									
695 W. (Baltimore and Potomac freight depot)									
695 (vacant)									
696	26			4			30		
697 N. (vacant)									
697	110	1	9.09	6			116	1	8.62
698 (vacant)									
699 N. (vacant									
699	24			82	3	3.65	106	3	28.30
700	35	1	28.57				35	1	28.57
701	185	1	5.40	19	1	52.64	204	2	9.80
702	136	1	7.35				136	1	7.35
703	115	1	8.69	51	2	39.21	166	3	18.07
704 (vacant)									
705 (vacant)									
706	21						21		
707	53						53		
708	6			8			14		
708 E. (vacant)									
708 S. (vacant									
709	6						6		
710 (vacant)									
710 E. (vacant)									
711				4			4		
711 E.	9						9		
712	6			61	1	9.83	67	1	14.92
713 (vacant)									
714	34	2	58.82				34	2	58.80
715	126	3	23.73	65	1	15.38	191	4	20.94
716	153						153		
717	122	4	32.79				122	4	32.78
718 (vacant)									
719	291	10	34.36	77	2	25.98	368	12	32.61
720	204	3	14.70	21			225	3	13.33
721	577	4	6.93	9			586	4	6.82
722	151	2	13.24	3			154	2	12.98
723	252	3	11.95	9	1	111.11	280	4	15.38
724	229	6	26.19	115	3	26.08	344	9	26.14
725	405	8	19.53	205	6	29.27	610	14	22.95
726	61	1	16 39	6			67	1	14.92
727	194	1	5.15	11			205	1	48.78
728	219	2	91.27	45			264	2	7.62

General death rate—Continued.

WASHINGTON—Continued.

square.	White.			Colored.			Total.		
	Population.	Deaths	Death rate.	Population.	Deaths	Death rate.	Population.	Deaths	Death rate.
ssional									
		1						1	
sional									
nap)									
	496	12	24.19	51	1	20	547	13	23.76
	221	4	18.09	80	3	37.50	301	7	23.25
	162	3	18.52	137	1	7.30	299	4	13.37
	124	2	16.12	3	1	333.33	127	3	23.62
	200	2	10	4	1	250	204	3	14.70
	12	1	83.33	262	4	15.26	274	5	18.25
	37			30	1	33.33	67	1	14.92
	145	2	13.89	4			149	2	13.43
	9	1	111.11	62	1	16.13	71	2	28.17
	83			48			131		
it)									
	276	7	25.36	271	6	22.14	547	13	22.76
	246	7	28.45	4	2	500	250	9	32
it)									
nap)									
nap)									
it)									
	58	1	17.24	60	2	33.33	118	3	25.42
	142	5	35.21	36	1	27.77	178	6	33.71
	171	5	29.24				171	5	29.24
	212			45			257		
	257	4	15.56	7	1	142.86	264	5	18.94
	313	3	9.58	180	3	16.66	493	6	12.17
	276	1	3.62	2			278	1	35.59
	143	3	20.98	98	3	30.61	241	6	24.90
	103	1	9.71	7			110	1	90.90
	206	3	14.56	104	3	28.84	310	6	19.39
	116	3	25.86	1			117	3	25.64
	165	4	24.24	68	3	44.12	233	7	30.09
	247	4	16.19	22			269	4	14.87
	165	3	18.18	12	1	83.33	177	4	22.65
	139	1	7.19	48	2	41.68	187	3	16.04
	132	2	15.15	14	1	71.43	146	3	20.52
	155	1	6.45		1		155	2	12.93
	16						16		
	114	1	8.77	16			130	1	7.69
	134	2	14.92	21			155	2	12.93
	75	1	12.12		1		75	2	26.66
	121	3	24.71	1			122	3	24.60
	161	4	11.12	78	2	25.64	239	6	25.10
	27			5			32		
	6						6		
	31						31		
	154	3	19.41	9			163	3	18.40
	89						89		
	215	1	4.65	14			229	1	4.37
	186	1	5.37	4			190	1	5.26
	110			78			188		
	330	8	24.24	55			385	8	20.77
	231			10			241		
	101	2	19.80	1			102	2	19.60
	185	6	32.43	13			198	6	30.30
	53			52			105		
	150	2	13.33	30			180	2	11.11
	196	2	10.20	77	3	39	273	5	18.32
	172	1	5.81	67			239	1	4.14
	182	1	5.49	12			194	1	5.15
	190	1	5.15	24	1	41.66	214	2	9.34
	77	2	27.24	1			78	2	25.64
	110	2	18.18	19			129	2	15.50
	187	1	5.34	29	1	34.48	216	2	13.88
	49	1	20.40	53	2	37.75	102	3	29.41
	87	1	11.49	113	3	26.55	200	4	20.00
	26			1			27		
	75	2	26.66	109	1	9.17	184	3	6.30
	154	1	6.42	19	1	52.63	173	2	11.56
	39			192	1	5.20	231	1	4.33
	134	1	7.46	41	2	48.79	175	3	17.14
	116	3	25.86	34			150	3	20

General death rate—Continued.

WASHINGTON—Continued.

Number of square.	White.			Colored.			Total.		
	Population.	Deaths	Death rate.	Population.	Deaths	Death rate.	Population.	Deaths	
800	74	1	13.51				74	1	
801	274				1		274	1	
802	28			19	1	52.63	47	1	
803 (not on map)									
804 (vacant)									
805	203	3	14.77				203	3	
806	103	2	19.42				103	2	
807	62	1	16.12				62	1	
808	223	1	4.88	2			225	1	
809	183	1	5.46	1	1		184	2	
810	64						64		
811	3			1			4	1	
812	159	3	18.87	45	2	44.44	204	5	
813	108	1	9.25	14	2	142.86	122	3	
814	92			2	1	500	94	1	
815	159	2	19.37	8			167	2	
816	121	1	8.26	78			199	1	
817	152			5			157		
818	176	2	11.36	47	2	42.55	223	4	
819	149	3	20.13	22	1	45.45	171	4	
820	113			32	1	31.25	145	1	
821	70	1	14.28	98	3	30.61	168	4	
822	189	5	26.45	5			194	5	
823	193	2	10.30	25	1	40	218	3	
824	87			22			109		
825	66	2	30.30	16			82	2	
825 S.	144	1	6.25	21	1	47.62	165	2	
826				20			20		
826 S. (vacant)									
827 (not on map)									
828	6			17	1	58.82	23	1	
829	137			49	2	40.82	186	2	
830	40	1	25				40	1	
831	38						38		
832	7						7		
833	116	1	8.62	1			117	1	
834	84	1	11.90				84	1	
835	145			5			150		
836	204	1	4.90	35			239	1	
837	89	1	11.23				89	1	
838	113	1	8.87	11			124	1	
839	197	3	10.52	3			200	3	
840	114	1	8.77	5			119	1	
841	95	2	21.05	4			99	2	
842	122	3	24.59	1	2		123	5	
843	169	3	17.75	46	1	21.74	215	4	
844	160	1	6.31	14			174	1	
845	105	1	9.42	26	2	76.92	131	3	
846	170	1	5.88	31			201	1	
847	135	2	22.22	31			166	2	
848 (not on map)									
849	36						36		
850 (not on map)									
851 (not on map)									
852 (not on map)									
853 N	12			116	1	8.62	128	1	
853 (vacant)									
854 (not on map)									
855 N	11	1	90.90	11			22	1	
855	290			8			298		
856	432	10	23.15	22			454	10	
857	95			1			96		
858	229	6	21.83	31			260	6	
859	419	5	11.93				419	5	
860	221			2			223		
861	581	7	12.05	36	2	55.55	617	9	
862 (vacant)									
863	9			38	2	52.63	47	2	
864	265	2	7.54	7			272	2	
865	121	2	16.32	49	1	20.40	170	3	
866	201	5	24.82	2	1	500	203	6	
867	270	1	3.70	51			321	1	
868	294	4	13.60	20			314	4	
869	315	3	9.52	9			324	3	
870	260	5	19.23	216	5	23.20	476	10	
871	120	1	8.33	10			130	1	
872	120	1	8.33	3			123	1	
873	186	1	5.38	104	2	19.23	290	3	

General death rate—Continued.

IN ALLEYS—Continued.

Name of alley.	White.			Colored.			Total.		
	Population.	Deaths.	Death rate.	Population.	Deaths.	Death rate.	Population.	Deaths.	Death rate.
ıylor's alley				9			9		
rk row	19						19		
ıvidson court				38			38		
mperance avenue				203	8	39.40	203	8	39.40
ılley street				72	2	27.77	72	2	27.77
ıaker alley				80			80		
				6			6		
ncent court				22			22		
anklin court	3			6			9		
ılders' Exchange court				3			3		
ate alley	2			33			35		
aham alley				14			14		
aper's alley				61			61		
rlin's alley	2			55	1	18.18	57	1	18.18
ıvis's court				11			11		
ızenbrock's alley				23			23		
				3			3		
	461			9			9	99	14.08
ırr's court				29			29		
				9			9		
ley's court	11						11		
nion court				75	1	13.33	75	1	13.33
utton's court				18	2	111.11	18	2	111.11
ine-and a-half street				95			95		
›vington street				105	1	9.52	105	1	9.52
aylor's alley	3			84	6	71.43	87	6	71.43
agden's alley	20			235	4	17.02	255	4	17.02
iepherd's alley	5			150	4	26.66	155	4	26.66
				3			3		
mple court	1			3			4		
ıptist alley				26			26		
mperance Hall alley	21			53	1	18.86	74	1	18.86
olden street	5			130	5	38.46	135	5	38.46
iberty street				164	5	30.49	164	5	30.48
ensmore alley	4			80	5	62.50	84	5	62.50
›rksteak alley				95			95		
				4			4		
race court				38	2	52.63	38	2	52.63
ynne's alley				25			25		
ammeraley court				29			29		
rlington place	13						13		
est alley				77			77		
lick's alley				276	1	3.62	276	1	3.62
andall row				21			21		
arion court				15	4	266.66	15	4	266.66
eeman's alley	6			191	3	15.70	197	3	15.70
ever's alley				26			26		
ard's alley	8			45			53		
adison court	4			45			49		
oat alley	3			242	6	24.80	245	6	24.80
				13			13		
isex court	114	1	8.77		2		114	3	8.77
ıtes's alley				17	1	59	17	2	59
›x's alley		1		15			15		
iller's alley				20			20		
illiams's alley				3			3		
. Dominick's alley				7	1	142.86	7	1	142.86
ıge's alley				8			8		
ırke's alley				74	1	13.51	74	1	13.51
›ringman alley				116	2	17.24	116	2	17.24
ıew's alley				80			80		
›ddy street	28						28		
street alley				23			23		
nbush court				46			46		
›binson street	36						36		
ınterbury alley				23			23		
arble Hall alley				28			28		
ken's court				25	1	40	25	1	40
ıcon's alley				6	1	166.66	6	1	166.66
›gan's alley	3						3		
nithson's court				46			46		
ıllinane's alley				126	3	23.81	126	3	23.81

General death rate—Continued.

IN ALLEYS—Continued.

No. of square.	Name of alley.	White.			Colored.			Total.		
		Population.	Deaths.	Death rate.	Population.	Deaths.	Death rate.	Population.	Deaths.	Death rate.
499	Cow alley	.....	....	.....	18	2	111.11	18	2	111.11
500	Casey's alley	.....	....	.....	33	....	.....	33	....	.....
501	Locust court	.....	....	.....	75	....	.....	75	....	.....
502	Clark's court	4	....	.....	53	2	37.73	57	2	37.73
502	Grant court	19	....	.....	.....	....	.....	19	....	.....
502	Union court	8	....	.....	64	1	15.62	72	1	15.62
503	Huntoon court	120	2	15.38	.....	....	.....	120	2	15.38
*C	Armory place	10	....	.....	16	1	62.50	26	1	62.50
507	Richardson court	.....	....	.....	111	2	18.01	111	2	18.01
512	O street alley	2	....	.....	282	6	21.27	284	6	21.27
513	Ridge street alley	.....	....	.....	28	1	35.72	28	1	35.72
514	Brown's alley	.....	....	.....	54	....	.....	54	....	.....
515	Naylor's alley	.....	....	.....	123	....	.....	123	....	.....
516	Prather's alley	.....	....	.....	57	....	.....	57	....	.....
518	St. Mary's court	235	....	.....	187	....	.....	422	....	.....
518	Washington court	.....	....	.....	31	....	.....	31	....	.....
518	Douglass alley	.....	....	.....	16	1	62.50	16	1	62.50
529	Census court	.....	....	.....	19	1	52.63	19	1	52.63
535	Willow Tree alley	14	....	.....	314	10	31.84	328	10	31.84
536	Clark's alley	.....	....	.....	71	2	28.17	71	2	28.17
537	Pleasant alley	.....	....	.....	22	....	.....	22	....	.....
538	Knox alley	.....	....	.....	70	5	71.43	70	5	71.43
539	Broad alley	.....	....	.....	135	4	29.62	135	4	29.62
540	Pleasant alley	4	....	.....	126	2	15.90	130	2	15.90
541	Dixon's court	.....	....	.....	232	6	25.86	232	6	25.86
543	Syphax court	.....	....	.....	8	....	.....	8	....	.....
544	Allen's court	.....	....	.....	85	3	35.29	85	3	35.29
545	Van street	3	....	.....	196	7	35.71	199	7	35.71
551	Reeves's court	.....	....	.....	201	5	24.87	201	5	24.87
551	Cook's court	.....	....	.....	84	4	47.62	84	4	47.62
553	Brook's court	3	....	.....	171	7	40.93	174	7	40.93
554	Baltimore court	.....	....	.....	108	4	37.04	108	4	37.04
557	Pierce street alley	.....	1	.....	129	2	15.50	129	2	15.50
557	Burgess court	.....	....	.....	68	1	14.70	68	1	14.70
559	A. B. C. alley	4	....	.....	88	3	34.09	92	3	34.09
562	Seaton court	.....	....	.....	45	1	22.22	45	1	22.22
564	Ball's court	.....	....	.....	117	4	34.19	117	4	34.19
566	Gould's alley	.....	....	.....	23	1	43.48	23	1	43.48
567	Horn's court	.....	....	.....	47	....	.....	47	....	.....
568	Sheriff's alley	.....	....	.....	14	....	.....	14	....	.....
569	Madison alley	.....	....	.....	83	3	36.14	83	3	36.14
571	Union alley	.....	....	.....	51	4	78.43	51	4	78.43
575	Purdy's court	82	2	23.17	26	....	.....	108	2	23.17
576	Dudley place	.....	....	.....	19	....	.....	19	....	.....
577	B-and-a-half street	9	....	.....	78	....	.....	87	....	.....
577	Two-and-a-half street	5	....	.....	19	....	.....	24	....	.....
579	Quinn's court	.....	....	.....	17	1	58.82	17	1	58.82
580	Pear tree court	.....	....	.....	3	1	333.33	3	1	333.33
581	Limerick alley	1	....	.....	87	....	.....	88	....	.....
583	Sullivan court	.....	....	.....	38	....	.....	38	....	.....
584	Eliason court	.....	....	.....	8	....	.....	8	....	.....
584	O'Neill's court	.....	....	.....	57	....	.....	57	....	.....
586	Brown's court	.....	....	.....	97	2	20.62	97	2	20.62
587	Desmond's court	.....	....	.....	38	....	.....	38	....	.....
588	Leonard's court	.....	....	.....	23	....	.....	23	....	.....
589	H street alley	.....	....	.....	4	....	.....	4	....	.....
593	Parker's row	.....	....	.....	28	....	.....	28	....	.....
594	Clark's court	.....	....	.....	40	....	.....	40	....	.....
616	Decatur court	1	....	.....	38	....	.....	39	....	.....
617	Hanover court	.....	....	.....	47	1	21.30	47	1	21.30
620	Logan place	10	....	.....	197	5	25.38	207	5	25.38
620	Half street court	.....	....	.....	101	2	19.80	101	2	19.80
624	Jackson alley	4	....	.....	174	5	28.76	178	5	28.76
625	Fitzgerald alley	.....	....	.....	13	1	76.92	13	1	76.92
626	Johnson's alley	3	....	.....	.....	....	.....	3	....	.....
628	McCullough street	.....	....	.....	190	3	15.79	190	3	15.79
628	Dingman place	2	....	.....	184	1	5.43	186	1	5.43
635	Capitol court	.....	....	.....	5	1	200.00	5	1	200.00
635	Wonders court	34	3	85.29	25	....	.....	59	3	85.29
638	Temple court	.....	....	.....	73	5	68.50	73	5	68.50

*Reservation.

General death rate—Continued.

IN ALLEYS—Continued.

No. of square.	Name of alley.	White.			Colored.			Total.		
		Population.	Deaths.	Death rate.	Population.	Deaths.	Death rate.	Population.	Deaths.	Death rate.
640	Capitol alley	.....	.....	.....	20	2	100.00	20	2	100.00
640	Cedar court	.....	.....	.....	35	.....	.....	35	.....	.....
642	Christian alley	.....	.....	.....	10	.....	.....	10	.....	.....
650	Nolan's court	.....	.....	.....	211	3	14.21	211	3	14.21
652	Pierce's court	9	.....	.....	41	1	24.40	50	1	24.40
652	Church alley	.....	.....	.....	19	.....	.....	19	.....	.....
676	Defrees court	15	.....	.....	24	.....	.....	39	.....	.....
684	Murray's court	.....	.....	.....	7	1	142.85	7	1	142.85
686	Oriole court	12	.....	.....	116	1	8.62	128	1	8.62
*10	Jackson Hall alley	31	1	32.26	146	5	34.24	177	6	66.50
*11	Adams Express alley	.....	1	.....	53	.....	.....	53	1	18.86
690	Willow Tree alley	.....	.....	.....	50	.....	.....	50	.....	.....
719	Cabbage alley	9	.....	.....	50	1	20	59	1	16.95
719	St Ann's avenue	32	.....	.....	.....	.....	.....	32	.....	.....
724	Lowe's alley	6	.....	.....	49	.....	.....	55	.....	.....
725	Schott's alley	48	.....	.....	197	5	25.38	245	5	25.38
733	Rumsey's court	.....	.....	.....	33	1	33.30	33	1	33.30
743	Quander place	.....	.....	.....	96	4	41.66	96	4	41.66
743	Van street	.....	.....	.....	61	1	16.40	61	1	16.40
749	Fenton court	.....	2	.....	24	1	41.66	24	1	41.66
753	Gordon avenue	.....	.....	.....	180	4	22.22	180	4	22.22
757	Bassett's alley	.....	.....	.....	51	3	58.82	51	3	58.82
759	Terrace court	.....	.....	.....	44	2	45.45	44	2	45.45
762	Ruppert's court	.....	.....	.....	20	.....	.....	20	.....	.....
776	Pleasant alley	33	.....	.....	10	.....	.....	43	.....	.....
779	Groff's court	.....	1	.....	55	.....	.....	55	1	.....
785	Douglass court	.....	.....	.....	42	2	47.62	42	2	47.62
786	Miller's court	.....	.....	.....	36	.....	.....	36	.....	.....
788	Harris court	13	.....	.....	.....	.....	.....	13	.....	.....
801	Dick's alley	2	.....	.....	.....	.....	.....	2	.....	.....
801	Mechanics place	25	.....	.....	.....	.....	.....	25	.....	.....
818	Navy place	8	.....	.....	336	14	41.61	344	14	41.66
858	Blair's court	10	.....	.....	30	.....	.....	40	.....	.....
859	Brewer's court	24	.....	.....	.....	.....	.....	24	.....	.....
870	Brown alley	.....	.....	.....	122	5	41	122	5	41
873	Murray's court	.....	.....	.....	22	.....	.....	22	.....	.....
877	Mark's alley	.....	.....	.....	113	5	44.25	113	5	44.25
895	St James court	.....	.....	.....	28	.....	.....	28	.....	.....
912	Green's court	.....	.....	.....	25	.....	.....	25	.....	.....
926	Odd Fellows' Hall alley	17	.....	.....	.....	.....	.....	17	.....	.....
960	Abner's court	.....	.....	.....	9	.....	.....	9	.....	.....
965	Everly's court	.....	.....	.....	12	.....	.....	12	.....	.....
966	.....	4	.....	.....	6	.....	.....	10	.....	.....
990	Tiger alley	.....	.....	.....	31	3	96.77	31	3	96.77
1015	Water street	.....	.....	.....	42	4	95.24	42	4	95.24
1018	Hope avenue	.....	.....	.....	98	4	40.82	98	4	40.82
1020	Coxey's court	.....	.....	.....	69	1	14.50	69	1	14.50
1025	Wylie's court	.....	.....	.....	106	.....	.....	106	.....	.....
1027	Linden court	.....	.....	.....	117	2	17.09	117	2	17.09
1030	Childs court	25	.....	.....	.....	.....	.....	25	.....	.....
1041	Harrison court	6	.....	.....	94	1	10.63	100	1	10.63
1042	Guethler's alley	.....	.....	.....	45	.....	.....	45	.....	.....
1060	King's place	.....	.....	.....	46	.....	.....	46	.....	.....
14	Keady's alley	.....	.....	.....	51	1	19.60	51	1	19.60
15	Factory Hill	.....	.....	.....	55	2	36.36	55	2	36.36
16	Caton's alley	.....	.....	.....	17	.....	.....	17	.....	.....
18	Cecil alley	70	.....	.....	12	.....	.....	82	.....	.....
18	Arlow's alley	.....	.....	.....	15	.....	.....	15	.....	.....
18	Cherry Hill	.....	.....	.....	61	2	32.80	61	2	32.80
19	Water's alley	.....	.....	.....	23	.....	.....	23	.....	.....
19	Coopershop alley	.....	.....	.....	14	.....	.....	14	.....	.....
19	South alley	162	.....	.....	7	.....	.....	169	.....	.....
30	Car Stable alley	28	.....	.....	.....	.....	.....	28	.....	.....
35	Bank alley	37	.....	.....	5	.....	.....	42	.....	.....
37	Masonic Hall alley	8	.....	.....	.....	.....	.....	8	.....	.....
38	Congress Street alley	.....	.....	.....	55	1	18.18	55	1	18.18
39	Jackson alley	.....	.....	.....	6	.....	.....	6	.....	.....
39	Thomas alley	.....	.....	.....	12	.....	.....	12	.....	.....
45	Rock court	.....	.....	.....	65	.....	.....	65	.....	.....
48	Lynch's alley	.....	.....	.....	6	.....	.....	6	.....	.....

* Reservation.

General death rate—Continued.

WASHINGTON—Continued.

Number of square.	White.			Colored.			Total.	
	Population.	Deaths	Death rate.	Population.	Deaths	Death rate.	Population.	Deaths
1074	50	1	200	50	5	100	100	
1075	77	2	25.96	3			80	
1076	49	2	40.81				49	
1077 (vacant)								
1078	20						20	
1079	23						23	
1079 SE. (vacant)								
1080 (vacant)								
1081 (not on map)								
1082				34	3	88.24	34	
1083	18			33	1	30.30	51	
1084 (vacant)								
1085	64			43	1	23.25	107	
1086	9			29	3	103.40	38	
1087				11			11	
1088	8			55	1	18.19	63	
1089 (vacant)								
1090	41	2	48.78	10	1	100	51	
1091	3			4			7	
1091 S. (vacant)								
1092				5			5	
1092 S. (vacant)								
1093	6			29	3	103.40	35	3
1094				11	1	90.90	11	1
1095	10			114	1	8.77	124	1
1096 (vacant)								
1097	18						18	
1098				39	2	51.28	39	2
1099 (not on map)								
1100 (vacant)								
1101 (not on map)								
1102 (vacant)								
1103 (not on map)								
1104 (not on map)								
1105 (not on map)								
1106 (not on map)								
1107				21			21	
1108				62	1	16.13	62	1
1109 (vacant)								
1110	7			33	2	60.60	40	2
1112 (vacant)								
1113 NE. (vacant)								
1113	12			14			26	
1114 (vacant)								
1114 SE. (vacant)								
Congressional Cemetery	8	1	125	1			9	1
1115 (not on map)								
1116 (not on map)								
1117 (not on map)								
1118 (vacant)					1			1
1119				8			8	
1120 (vacant)								
1121				9	1	111.11	9	1
1122 (vacant)								
1123 (not on map)								
1124 (not on map)								
1125 (vacant)								
1126 (vacant)								
1127 (vacant)								
1128 (vacant)								
1129				10			10	
1130 (vacant)								
1131 (not on map)								
1132 (vacant)								
1133 (vacant)								
1134 (vacant)								
1135 (vacant)								
1136 (vacant)								
1137 (vacant)								
1138 (vacant)								
1139 (vacant)								
1140 (vacant)								
1140 S. (vacant)								
1141 (vacant)								
1142 (vacant)								
1143 (vacant)								
1144 (vacant)								

General death rate—Continued.

WASHINGTON—Continued.

	White.			Colored.			Total.		
	Population.	Deaths	Death rate.	Population.	Deaths	Death rate.	Population.	Deaths	Death rate.
	56			264			320		
y-									
	30			79			109		
y-									
	19			33			52		
	80			128			208		
ng									
	48			10			58		
	150,414			70,284			220,698	3,596	

GEORGETOWN.

				5			5		
				1			1		
s,									
	8						8		
s,									
s,									
s,									
s,									
	2						2		
	12			6			18		
	34	1	29.41	1			35	1	
	21	2	95.24	28			49	2	
	88	2	22.74	73	1	13.70	161	3	18.63
	11			55	1	18.18	66	1	15.15
	94	2	21.27	37			131	2	22.90
	52			8			60		
	161	2	12.42	110			271	2	73.80
	162	1	6.17	45	1	22.22	207	2	9.66
	151	1	6.62	102	1	9.80	253	2	7.90
	97	5	51.54	10	1	100	107	6	56.08
	87			11	1	90.90	98	1	10.20
	3	1	333.33	1	1	1,000	4	2	500
	40			9			49		
	84						84		
	81	3	37	47	2	42.55	128	5	39.06
	131	1	7.63	109	2	18.35	240	3	12.50
	159	2	12.58	3			162	2	12.34
	106	4	37.73	16			122	4	32.80
	241	10	41.49	8	2	250	249	12	48.19

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, arranged by classes, orders, sex, color, months, quarters, age, nativity, and social relations, with percentages of death rates, for the year ending June 30, 1897.*

Cause of death.	Total deaths from each cause.	Per cent of each cause to total mortality.	DEATH RATE. Deaths per 1,000 inhabitants.		RECAPITULATION. Total by color and sex.				Total by color.		Total by sex.		1896. July.				August.			
					W.		C.						W.		C.		W.		C.	
			W.	C.	M.	F.	M.	F.	W.	C.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS I.—ZYMOTIC DISEASES.																				
Order 1.—*Miasmatic.*																				
Measles	3	0.05	.....	0.02	.....	1	1	1	1	2	1	2	.....	.....	1	1	.....	.....	.....	.....
Scarlet fever	1	.01	0.0001	.....	1	.....	.....	.....	1	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diphtheria	110	1.92	.42	.36	40	38	13	19	78	32	53	57	1	9	1	1	1	.....	1	.....
Croup	6	.10	.02	.02	4	.....	.....	2	4	2	4	2	.....	.....	.....	.....	1	.....	.....	.....
Whooping cough	65	1.14	.15	.42	12	16	20	17	28	37	32	33	.....	.....	1	4	2	3	.....	.....
Typhoid fever	147	2.57	.46	.68	51	36	29	31	87	60	80	67	.....	2	4	2	5	5	1	4
Typhomalarial fever	6	.10	.02	.02	2	2	.....	2	4	2	2	4	.....	1	.....	.....	1	.....	.....	1
Intermittent fever	9	.15	.04	.01	4	4	1	.....	8	1	5	4	.....	.....	1	.....	1	1	.....	.....
Remittent fever	10	.17	.03	.06	1	4	2	3	5	5	3	7	1	1	1	.....	.....	1	.....	.....
Congestive chills	5	.09	.02	.01	1	3	.....	1	4	1	1	4	.....	.....	.....	.....	.....	.....	.....	1
Malarial fevers	27	.47	.11	.09	12	8	1	6	20	7	13	14	.....	.....	1	1	1	1	.....	2
Influenza (grippe)	118	2.06	.44	.41	35	47	12	24	82	36	47	71	.....	.....	.....	.....	.....	.....	.....	.....
Erysipelas	14	.24	.07	.01	6	7	.....	1	13	1	6	8	.....	1	.....	.....	.....	1	.....	1
Septicæmia	3	.05	.01	.01	2	.....	.....	1	2	1	2	1	2	.....	.....	.....	.....	.....	.....	.....
Pyæmia	2	.03	.....	.01	.....	1	1	.....	1	1	1	1	.....	.....	.....	.....	.....	.....	.....	.....
Carbuncle	5	.09	.03	.....	3	2	.....	.....	5	.....	3	2	.....	.....	.....	.....	.....	.....	.....	.....
Diarrhea	66	1.16	.12	.50	14	8	19	25	22	44	33	33	8	5	10	13	2	1	1	4
Dysentery	35	.61	.11	.17	12	8	4	11	20	15	16	19	1	1	2	1	2	2	1	4
Enterocolitis	86	1.52	.29	.33	28	29	13	16	57	29	41	45	13	15	4	8	4	7	4	6
Cholera infantum	165	2.88	.41	1	39	38	45	43	77	88	84	81	16	19	23	24	9	11	15	10
morbus	6	.10	.02	.03	1	2	1	2	3	3	2	4	.....	2	1	1	.....	.....	.....	.....
Subacute milk infection	1	.01	.....	.....	1	.....	.....	.....	1	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....
Mumps	1	.01	.....	.01	.....	.....	.....	1	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
Total miasmatic	891	15.53	2.77	4.18	269	254	162	206	523	368	431	460	43	56	50	56	29	33	23	33
Order 2.—*Enthetic.*																				
Pemphigus (neonatorum)	1	.02	.....	.....	.....	1	.....	.....	1	.....	.....	1	.....	.....	.....	.....	.....	1	.....	.....
Syphilis, congenital	25	.44	.03	.23	3	2	9	11	5	20	12	13	.....	.....	.....	2	.....	1	1	.....
tertiary	7	.11	.01	.05	1	1	3	2	2	5	4	3	.....	.....	2	.....	1	.....	.....	1
Syphilitic meningitis	2	.03	.....	.02	.....	.....	.....	2	.....	2	.....	2	.....	.....	.....	1	.....	.....	.....	.....
Total enthetic	35	.60	.04	.30	4	4	12	15	8	27	16	19	.....	.....	2	3	1	2	1	1

General death rate—Continued.

GEORGETOWN—Continued.

	White.			Colored.			Total.		
ıare.	Population.	Deaths	Death rate.	Population.	Deaths	Death rate.	Population.	Deaths	Death rate.
.....	197	.....	.....	69	1	14.50	266	1	3.76
.....	81	.....	.....	27	2	74.07	108	2	18.51
.....	322	7	21.73	134	.....	.....	456	7	15.35
.....	134	1	52.24	25	1	40	159	2	12.58
.....	291	5	17.18	49	.....	.....	340	5	14.70
.....	57	1	17.55	11	1	90.90	68	2	29.40
.....	43	1	23.25	3	.....	.....	46	1	21.70
.....	25	.....	.....	5	.....	.....	30	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	74	.....	.....	74	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	52	.....	.....	70	.....	.....	122	.....	.....
.....	149	1	6.71	29	3	103.45	178	4	22.47
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	11	.....	.....	.....	.....	.....	11	.....	.....
.....	27	.....	.....	1	.....	.....	28	.....	.....
.....	17	.....	.....	1	.....	.....	18	.....	.....
.....	64	.....	.....	20	.....	.....	84	.....	.....
.....	68	1	14.70	48	1	20.83	116	2	17.24
.....	57	.....	.....	4	.....	.....	61	.....	.....
.....	204	2	9.80	7	.....	.....	211	2	9.48
.....	115	.....	.....	9	.....	.....	124	.....	.....
.....	26	.....	.....	15	.....	.....	41	.....	.....
p).....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	94	.....	.....	.....	.....	.....	94	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	8	.....	.....	.....	.....	.....	8	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	5	.....	.....	.....	.....	.....	5	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
p).....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	3	.....	.....	.....	.....	.....	3	.....	.....
.....	11,746	157	.....	4,143	77	.....	15,889	234	.....

General death rate—Continued.

IN ALLEYS.

No. of square.	Name of alley.	White.			Colored.			To		
		Population.	Deaths.	Death rate.	Population.	Deaths.	Death rate.	Population.		
1	Reed's alley				8	1	125	8		
4	King's court				15			15		
4	Pony court				12	1	83.33	12		
5	Green's court				70			70		
13	Jones's court				20			20		
13	Wells's court				5			5		
13					14			14		
14	Fussell's court				51			51		
16	Hughes's court	2			136	5	36.76	138		
17	Gallagher Hill				12			12		
17	Gallagher alley				11			11		
20					6			6		
24	Phillips's court	9			141	5	35.46	150		
28	Snow's row				249	13	52.21	249	13	
31	Bakehouse Hill				16			16		
33	Fletcher's Hill	8			25			33		
37	Stanton alley				39	2	51.28	39		
42	St. Mary's court				42	2	47.62	42		
44	Ricketts's court				37	2	54.02	37		
51	Reed's court	7			59	2	34	66		
54	St. Paul's court				39	1	25.64	39		
56	West End court				18			18		
59	Wilcox court (3 houses vacant)									
66	Hilyer court	16			1			17		
67	Warner court	5			20			25		
68	Twine alley	6			26	1	38.46	32		
69	Cook alley				14			14		
70	Johnson row				11			11		
70	Ward place	71	1	14.08	21	5	238.10	92	6	
70	Ward alley	11			72			83		
70	Peach alley				57			57		
72	Libbey row				5			5		
73	Steven's court				135	3	22.22	135	3	2
74	Johnson's court				37			37		
76	Alexander's court				89	1	11.23	89	1	11
77	Davies's court				19	2	105.26	19	2	
79	Daily's alley				42			42		
81	Johnson's row				33	1	30.30	33	1	30
85	Lee's court				41			41		
104	O'Brien's court				96			96		
107	Constitution alley				30			30		
110					16			16		
114	Green's court				57	1	17.54	57	1	17
117	Linger's court	5			171	5	29.24	176	5	28
126	Magruder's alley	6			20			26		
127		2			8			10		
140	Queen alley	7			172	2	11.62	180	2	11
157	Brainerd's alley	1			37			38		
159		4			44			48		
161	Clifton place				8			8		
163	Clarter's alley	6			20			26		
172	Hayes's court	9			69	2	29	78	2	29
183	Sumner alley	30			130	7	53.95	160	7	53
197	Union alley	93			164	1	6.10	257	1	6
204	Portner place	87			2			89		
205	Waverly alley				61	2	32.80	61	2	32
209	Samson alley	1			3	1	333.33	4	1	333
210		9			6			15		
211		1			22			23		
212					4			4		
214	Mount Vernon court	7			72			79		
231	Monument alley	7			14			21		
234	Liberty street				101	1	9.90	101	1	9
235	Chester court	9			286	9	31.47	295	9	31
238	Cedar street	4			167	5	30	171	5	30
241					3			3		
242					8			8		
244	Wylie's court	3			42			45		
247	Green's court	3			73	3	41.10	76	3	41
248		3			10			13		
252	Foundry alley				66	1	15.15	66	1	15
254	Ebbitt House alley	3						3		

General death rate—Continued.

IN ALLEYS—Continued.

of alley.	White.			Colored.			Total.		
	Population.	Deaths.	Death rate.	Population.	Deaths.	Death rate.	Population.	Deaths.	Death rate.
				9			9		
	19						19		
				38			38		
nue				203	8	39.40	203	8	39.40
				72	2	27.77	72	2	27.77
				80			80		
				6			6		
				22			22		
	3			6			9		
nge court				3			3		
	2			33			35		
				14			14		
				61			61		
	2			55	1	18.18	57	1	18.18
				11			11		
ley				23			23		
				3			3		
	461			9			9	99	14.08
				29			29		
				9			9		
	11						11		
				75	1	13.33	75	1	13.33
				18	2	111.11	18	2	111.11
street				95			95		
t				105	1	9.52	105	1	9.52
	3			84	6	71.43	87	6	71.43
	20			235	4	17.02	255	4	17.02
r	5			150	4	26.66	155	4	26.66
				3			3		
	1			3			4		
				26			26		
ll alley	21			53	1	18.86	74	1	18.86
	5			130	5	38.46	135	5	38.46
				164	5	30.49	164	5	30.48
	4			80	5	62.50	84	5	62.50
				95			95		
				4			4		
				38	2	52.63	38	2	52.63
				25			25		
irt				29			29		
	13						13		
				77			77		
				276	1	3.62	276	1	3.62
				21			21		
				15	4	266.66	15	4	266.66
	6			191	3	15.70	197	3	15.70
				26			26		
	8			45			53		
	4			45			49		
	3			242	6	24.80	245	6	24.80
				13			13		
	114	1	8.77		2		114	3	8.77
				17	1	59	17	2	59
		1		15			15		
				20			20		
				3			3		
lley				7	1	142.86	7	1	142.86
				8			8		
				74	1	13.51	74	1	13.51
				116	2	17.24	116	2	17.24
				80			80		
	28						28		
				23			23		
				46			46		
	36						36		
y				23			23		
y				28			28		
				25	1	40	25	1	40
				6	1	166.66	6	1	166.66
	3						3		
t				46			46		
r				126	3	23.81	126	3	23.81

General death rate—Continued.

IN ALLEYS—Continued.

No. of square.	Name of alley.	White.			Colored.			Total.	
		Population.	Deaths.	Death rate.	Population.	Deaths.	Death rate.	Population.	Deaths.
499	Cow alley	.....	....	.....	18	2	111.11	18	2
500	Casey's alley	.....	....	.....	23	....	.....	23	....
501	Locust court	.....	....	.....	75	....	.....	75	....
502	Clark's court	4	....	.....	53	2	37.73	57	2
502	Grant court	19	....	.....	.....	....	.....	19	....
502	Union court	8	....	.....	64	1	15.62	72	1
503	Huntoon court	130	2	15.38	.....	....	.....	130	2
*C	Armory place	10	....	.....	16	1	62.50	26	1
507	Richardson court	.....	....	.....	111	2	18.01	111	2
512	O street alley	2	....	.....	282	6	21.27	284	6
513	Ridge street alley	.....	....	.....	28	1	35.72	28	1
514	Brown's alley	.....	....	.....	54	....	.....	54	....
515	Naylor's alley	.....	....	.....	123	....	.....	123	....
516	Prather's alley	.....	....	.....	57	....	.....	57	....
518	St. Mary's court	285	....	.....	137	....	.....	422	....
518	Washington court	.....	....	.....	31	....	.....	31	....
518	Douglass alley	.....	....	.....	16	1	62.50	16	1
529	Census court	.....	....	.....	19	1	52.63	19	1
535	Willow Tree alley	14	....	.....	314	10	31.84	328	10
536	Clark's alley	.....	....	.....	71	2	28.17	71	2
537	Pleasant alley	.....	....	.....	22	....	.....	22	....
538	Knox alley	.....	....	.....	70	5	71.43	70	5
539	Broad alley	.....	....	.....	135	4	29.62	135	4
540	Pleasant alley	4	....	.....	126	2	15.90	130	2
541	Dixon's court	.....	....	.....	232	6	25.86	232	6
543	Syphax court	.....	....	.....	8	....	.....	8	....
544	Allen's court	.....	....	.....	85	3	35.29	85	3
545	Van street	3	....	.....	196	7	35.71	199	7
551	Reeves's court	.....	....	.....	201	5	24.87	201	5
551	Cook's court	.....	....	.....	84	4	47.62	84	4
553	Brook's court	3	....	.....	171	7	40.93	174	7
554	Baltimore court	.....	....	.....	108	4	37.04	108	4
557	Pierce street alley	.....	1	.....	129	2	15.50	129	2
557	Burgess court	.....	....	.....	68	1	14.70	68	1
559	A. B. C. alley	4	....	.....	88	3	34.09	92	3
562	Seaton court	.....	....	.....	45	1	22.22	45	1
564	Ball's court	.....	....	.....	117	4	34.19	117	4
566	Gould's alley	.....	....	.....	23	1	43.48	23	1
567	Horn's court	.....	....	.....	47	....	.....	47	....
568	Sheriff's alley	.....	....	.....	14	....	.....	14	....
569	Madison alley	.....	....	.....	83	3	36.14	83	3
571	Union alley	.....	....	.....	51	4	78.43	51	4
575	Purdy's court	82	2	28.17	26	....	.....	108	2
576	Dudley place	.....	....	.....	19	....	.....	19	....
577	B-and-a-half street	9	....	.....	78	....	.....	87	....
577	Two-and-a-half street	5	....	.....	19	....	.....	24	....
579	Quinn's court	.....	....	.....	17	1	58.82	17	1
580	Pear tree court	.....	....	.....	3	1	333.33	3	1
581	Limerick alley	1	....	.....	87	....	.....	88	....
583	Sullivan court	.....	....	.....	38	....	.....	38	....
584	Eliason court	.....	....	.....	8	....	.....	8	....
584	O'Neill's court	.....	....	.....	57	....	.....	57	....
586	Brown's court	.....	....	.....	97	2	20.62	97	2
587	Desmond's court	.....	....	.....	38	....	.....	38	....
588	Leonard's court	.....	....	.....	23	....	.....	23	....
589	H street alley	.....	....	.....	4	....	.....	4	....
593	Parker's row	.....	....	.....	28	....	.....	28	....
594	Clark's court	.....	....	.....	40	....	.....	40	....
616	Decatur court	1	....	.....	38	....	.....	39	....
617	Hanover court	.....	....	.....	47	1	21.30	47	1
620	Logan place	10	....	.....	197	5	25.38	207	5
620	Half street court	.....	....	.....	101	2	19.80	101	2
624	Jackson alley	4	....	.....	174	5	28.76	178	5
625	Fitzgerald alley	.....	....	.....	13	1	76.92	13	1
626	Johnson's alley	3	....	.....	.....	....	.....	3	....
628	McCullough street	.....	....	.....	190	3	15.79	190	3
628	Dingman place	2	....	.....	184	1	5.43	186	1
635	Capitol court	.....	....	.....	5	1	200.00	5	1
635	Wonders court	34	3	88.29	25	....	.....	59	3
638	Temple court	.....	....	.....	73	5	68.50	73	5

* Reservation.

General death rate—Continued.

IN ALLEYS—Continued.

Name of alley.	White.			Colored.			Total.		
	Population.	Deaths.	Death rate.	Population.	Deaths.	Death rate.	Population.	Deaths.	Death rate.
ɔitol alley	.....	.....	.....	20	2	100.00	20	2	100.00
lar court	.....	.....	.....	35	.....	.....	35	.....	.....
ɪistian alley	.....	.....	.....	10	.....	.....	10	.....	.....
lan's court	.....	.....	.....	211	3	14.21	211	3	14.21
rce's court	9	.....	.....	41	1	24.40	50	1	24.40
ɪrch alley	.....	.....	.....	19	.....	.....	19	.....	.....
'rees court	15	.....	.....	24	.....	.....	39	.....	.....
rray's court	.....	.....	.....	7	1	142.85	7	1	142.85
ole court	12	.....	.....	116	1	8.62	128	1	8.62
ɪkson Hall alley	31	1	32.26	146	5	34.24	177	6	66.50
ams Express alley	.....	1	.....	53	.....	.....	53	1	18.86
llow Tree alley	.....	.....	.....	50	.....	.....	50	.....	.....
ɔbage alley	9	.....	.....	50	1	20	59	1	16.95
Ann's avenue	32	.....	.....	.....	.....	.....	32	.....	.....
we's alley	6	.....	.....	49	.....	.....	55	.....	.....
ɪott's alley	48	.....	.....	197	5	25.38	245	5	25.38
msey's court	.....	.....	.....	33	1	33.30	33	1	33.30
ander place	.....	.....	.....	96	4	41.66	96	4	41.66
n street	.....	.....	.....	61	1	16.40	61	1	16.40
ɪton court	.....	2	.....	24	1	41.66	24	1	41.66
rdon avenue	.....	.....	.....	180	4	22.22	180	4	22.22
sett's alley	.....	.....	.....	51	3	58.82	51	3	58.82
race court	.....	.....	.....	44	2	45.45	44	2	45.45
ppert's court	.....	.....	.....	20	.....	.....	20	.....	.....
sant alley	33	.....	.....	10	.....	.....	43	.....	.....
ɔff's court	.....	1	.....	55	.....	.....	55	1	.....
ɪglass court	.....	.....	.....	42	2	47.62	42	2	47.62
ler's court	.....	.....	.....	36	.....	.....	36	.....	.....
rris court	13	.....	.....	.....	.....	.....	13	.....	.....
k's alley	2	.....	.....	.....	.....	.....	2	.....	.....
chanics place	25	.....	.....	.....	.....	.....	25	.....	.....
vy place	8	.....	.....	336	14	41.61	344	14	41.66
ir's court	10	.....	.....	30	.....	.....	40	.....	.....
ɔwer's court	24	.....	.....	.....	.....	.....	24	.....	.....
ɔwn alley	.....	.....	.....	122	5	41	122	5	41
rray's court	.....	.....	.....	22	.....	.....	22	.....	.....
rk's alley	.....	.....	.....	113	5	44.25	113	5	44.25
James court	.....	.....	.....	28	.....	.....	28	.....	.....
ɜen's court	.....	.....	.....	25	.....	.....	25	.....	.....
d Fellows' Hall alley	17	.....	.....	.....	.....	.....	17	.....	.....
ner's court	.....	.....	.....	9	.....	.....	9	.....	.....
erly's court	.....	.....	.....	12	.....	.....	12	.....	.....
.....	4	.....	.....	6	.....	.....	10	.....	.....
ɜer alley	.....	.....	.....	31	3	96.77	31	3	96.77
ɪter street	.....	.....	.....	42	4	95.24	42	4	95.24
pe avenue	.....	.....	.....	98	4	40.82	98	4	40.82
tey's court	.....	.....	.....	69	1	14.50	69	1	14.50
rlie's court	.....	.....	.....	106	.....	.....	106	.....	.....
ɪden court	.....	.....	.....	117	2	17.09	117	2	17.09
ilds court	25	.....	.....	.....	.....	.....	25	.....	.....
rrison court	6	.....	.....	94	1	10.63	100	1	10.63
ethler's alley	.....	.....	.....	45	.....	.....	45	.....	.....
ɪg's place	.....	.....	.....	46	.....	.....	46	.....	.....
ady's alley	.....	.....	.....	51	1	19.60	51	1	19.60
ɜtory Hill	.....	.....	.....	55	2	36.36	55	2	36.36
ɔon's alley	.....	.....	.....	17	.....	.....	17	.....	.....
ɜil alley	70	.....	.....	12	.....	.....	82	.....	.....
low's alley	.....	.....	.....	15	.....	.....	15	.....	.....
erry Hill	.....	.....	.....	61	2	32.80	61	2	32.80
ɪter's alley	.....	.....	.....	23	.....	.....	23	.....	.....
ɔpershop alley	.....	.....	.....	14	.....	.....	14	.....	.....
ɪth alley	162	.....	.....	7	.....	.....	169	.....	.....
* Stable alley	28	.....	.....	.....	.....	.....	28	.....	.....
ak alley	37	.....	.....	5	.....	.....	42	.....	.....
sonic Hall alley	8	.....	.....	.....	.....	.....	8	.....	.....
ɪgress Street alley	.....	.....	.....	55	1	18.18	55	1	18.18
ɜkson alley	.....	.....	.....	6	.....	.....	6	.....	.....
omas alley	.....	.....	.....	12	.....	.....	12	.....	.....
ck court	.....	.....	.....	65	.....	.....	65	.....	.....
nch's alley	.....	.....	.....	6	.....	.....	6	.....	.....

* Reservation.

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, arranged by classes, orders, sex, color, months, quarters, age, nativity, and social relations, with percentages of death rates, for the year ending June 30, 1897.*

Cause of death.	Total deaths from each cause.	Per cent of each cause to total mortality.	DEATH RATE. Deaths per 1,000 inhabitants.		RECAPITULATION. Total by color and sex.				Total by color.		Total by sex.		1896. July.				August.			
					W.		C.						W.		C.		W.		C.	
			W.	C.	M.	F.	M.	F.	W.	C.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS I.—ZYMOTIC DISEASES.																				
Order 1.—*Miasmatic.*																				
Measles	3	0.05	.....	0.02	.....	1	1	1	1	2	1	2	.....	.....	1	1	.....	.....	.....	.....
Scarlet fever	1	.01	0.0001	.....	1	.....	.....	.....	1	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diphtheria	110	1.92	.42	.36	40	38	13	19	78	32	53	57	1	9	1	1	1	.....	1	.....
Croup	6	.10	.02	.02	4	.....	.....	2	4	2	4	2	.....	.....	.....	.....	1	.....	.....	.....
Whooping cough	65	1.14	.15	.42	12	16	20	17	28	37	32	33	.....	.....	1	4	2	3	.....	.....
Typhoid fever	147	2.57	.46	.68	51	36	29	31	87	60	80	67	.....	2	4	2	5	5	1	4
Typhomalarial fever	6	.10	.02	.02	2	2	.....	2	4	2	2	4	.....	1	.....	.....	1	.....	.....	1
Intermittent fever	9	.15	.04	.01	4	4	1	.....	8	1	5	4	.....	.....	1	.....	1	1	.....	.....
Remittent fever	10	.17	.03	.06	1	4	2	3	5	5	3	7	1	1	1	.....	.....	1	.....	.....
Congestive chills	5	.09	.02	.01	1	3	.....	1	4	1	1	4	.....	.....	.....	.....	.....	.....	.....	1
Malarial fevers	27	.47	.11	.09	12	8	1	6	20	7	13	14	.....	.....	1	1	1	1	.....	2
Influenza (grippe)	118	2.06	.44	.41	35	47	12	24	82	36	47	71	.....	.....	.....	.....	.....	.....	.....	.....
Erysipelas	14	.24	.07	.01	6	7	.....	1	13	1	6	8	.....	1	.....	.....	.....	1	.....	1
Septicæmia	3	.05	.01	.01	2	.....	.....	1	2	1	2	1	2	.....	.....	.....	.....	.....	.....	.....
Pyæmia	2	.03	.....	.01	.....	1	1	.....	1	1	1	1	.....	.....	.....	.....	.....	.....	.....	.....
Carbuncle	5	.09	.03	.....	3	2	.....	.....	5	.....	3	2	.....	.....	.....	.....	.....	.....	.....	.....
Diarrhœa	66	1.16	.12	.50	14	8	19	25	22	44	33	33	8	5	10	13	2	1	1	4
Dysentery	35	.61	.11	.17	12	8	4	11	20	15	16	19	1	1	2	1	2	2	1	4
Enterocolitis	86	1.52	.29	.33	28	29	13	16	57	29	41	45	13	15	4	8	4	7	4	6
Cholera infantum	165	2.88	.41	1	39	38	45	43	77	88	84	81	16	19	23	24	9	11	15	10
morbus	6	.10	.02	.03	1	2	1	2	3	3	2	4	.....	2	1	1	.....	.....	.....	.....
Subacute milk infection	1	.01	.....	.....	1	.....	.....	.....	1	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....
Mumps	1	.01	.....	.01	.....	.....	.....	1	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
Total miasmatic	891	15.53	2.77	4.18	269	254	162	206	523	368	431	460	43	56	50	56	29	33	23	33
Order 2.—*Enthetic.*																				
Pemphigus (neonatorum)	1	.02	.....	.....	.....	1	.....	.....	1	.....	.....	1	.....	.....	.....	.....	.....	1	.....	.....
Syphilis, congenital	25	.44	.03	.23	3	2	9	11	5	20	12	13	.....	.....	.....	2	.....	1	1	.....

Malnutrition	22	.35	.06	.14	3	7	4	3	10	12	7	15	1	1			2		1	1	
Purpura	3	.05	.01			3			3			3									
Alcoholism	25	.44	.06	.13	13	1	5	6	14	11	18	7	2				1				3
Athrepsia	3	.05	.01		1	2			3		1	2					1	1			
Scorbutus	1	.01			1				1		1										
Total dietic	99	1.72	.24	.61	26	20	22	31	46	53	48	51	4	1	3	6	3	4	2	3	
Order 4.—*Parasitic.*																					
Thrush	2	.05		.01			1	1		2	1	1			1						1
Total parasitic	2	.05		.01			1	1		2	1	1			1						1
Total zymotic diseases	1,027	17.90	3.05	5.06	299	278	197	253	577	450	496	531	47	57	56	65	33	39	26	33	
CLASS II.—CONSTITUTIONAL DISEASES.																					
Order 1.—*Diathetic.*																					
Arthritis deformans	2	.03	.01		1	1			2		1	1		1							
Rheumatism	31	.54	.12	.10	9	13	6	3	22	9	15	16	3				1	1			
Dropsy (ascites)	2	.03		.02				2		2											
Anæmia	9	.15	.03	.03	3	3		3	6	3	3	6					1	1			
Goitre, exophthalmic	2	.03		.01		1		1	1	1		2									
Cancer of stomach	29	.50	.10	.12	12	7	4	6	19	10	16	13	4		1		2				
uterus	34	.59	.10	.17		19		15	19	15		34		3		2		1			
liver	14	.24	.06	.04	5	5	1	3	10	4	6	8					1	2	1		
breast	15	.27	.06	.06		10		5	10	5		15		1							
face	6	.10	.03		4	2			6		4	2		1			1				
throat	3	.05	.01	.01	2			1	2	1	2	1									1
abdomen	4	.07	.02		1	3			4		1	3		2							
pylorus	4	.07	.02		1	3			4		1	3									
rectum	5	.09	.02	.02	2	1		2	3	2	2	3									
tongue	1	.01			1				1		1	2	1								
maxillaries	6	.10	.03	.01	4	1		1	5	1	4	3	1								
pancreas	4	.07	.02	.01	2	1		1	3	1	2	1		1							
kidney	3	.05		.03			2	1		3	2	1				1					
sigmoid flexure	2	.03		.01		1		1	1	1		2						1			
vagina	1	.01		.01				1		1		1									1
bladder	3	.05	.02		3				3		3										
neck	4	.07	.02		2	2			4		2	2									
œsophagus	2	.03		.01	1		1		1	1	2										
lungs	1	.01			1				1		1										
scrotum	1	.01		.01			1			1	1										
larynx	2	.03	.01		1	1			2		1	1									
Cancrum oris	1	.01		.01			1			1	1										
Eczema pustulosum	2	.03		.02			1	1		2	1	1									
Elephantiasis	1	.01		.01				1		1		1									
Total diathetic	194	3.38	.68	.72	55	74	17	48	129	65	72	122	9	9	1	3	6	6	1	2	

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	1896.																								1897.			
	September.				Total first quarter.				October.				November.				December.				Total second quarter.				January.			
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS I.—ZYMOTIC DISEASES.																												
Order 1.—*Miasmatic.*																												
Measles							1	1																				
Scarlet fever													1								1							
Diphtheria	3	2	3	4	5	11	5	5	5	6	2	5	6	1	1	1	7	4	1	1	18	11	4	7	2	5	....	1
Croup					1				2							1					2			1				
Whooping cough	1	1	2	....	3	4	3	4	....	....	1	1	....	1	....	....	1	1	4	....	1	2	5	1	1	2	....	3
Typhoid fever	9	4	4	8	14	11	9	14	10	8	1	6	7	3	5	3	8	4	3	1	25	15	9	10	6	4	2	1
Typhomalarial fever	1	....	....	1	2	1	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Intermittent fever	2	2	....	....	3	3	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Remittent fever	....	....	1	....	1	2	2	....	....	1	....	1	....	....	....	....	....	....	....	1	....	1	....	2	....	....	....	....
Congestive chills	....	1	....	....	....	1	....	1	1	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	1	....	....
Malarial fevers	....	1	....	1	1	2	1	4	2	1	....	1	1	1	....	....	1	2	....	....	4	4	....	1	....	....	....	....
Influenza (grippe)	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	....	1	....	....	1	1	....	....	1	4	8	5	4
Erysipelas	1	1	....	....	1	3	....	1	1	....	....	....	....	....	....	....	1	2	....	....	2	2	....	....	....	1	....	....
Septicæmia	....	....	....	1	2	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Pyæmia	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Carbuncle	1	....	....	....	1	....	....	....	1	....	....	....	....	1	....	....	....	....	....	....	1	1	....	....	....	....	....	....
Diarrhœa	1	1	2	....	11	7	13	17	....	1	....	3	....	....	....	1	2	....	....	....	2	1	....	4	....	....	....	....
Dysentery	2	1	....	3	5	4	3	8	2	2	....	1	....	1	....	....	....	....	....	....	2	3	....	1	1	....	....	....
Enterocolitis	3	2	....	....	20	24	8	14	3	....	....	....	1	....	....	....	....	....	1	....	4	....	1	....	....	....	....	....
Cholera infantum	3	1	3	3	28	31	41	57	....	1	....	1	1	....	....	....	1	1	....	....	2	2	....	1	....	....	....	....
morbus	....	....	....	....	....	2	1	1	1	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....
Subacute milk infection	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Mumps	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	....
Total miasmatic	27	17	15	22	99	106	88	111	28	20	4	19	17	8	6	7	22	14	9	4	67	42	19	30	14	21	7	9
Order 2.—*Enthetic.*																												
Pemphigus (neonatorum)	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Syphilis, congenital	....	....	....	....	....	1	1	2	1	....	....	....	1	....	....	....	....	....	1	....	2	....	1	....	....	1	....	1
tertiary	....	....	....	....	1	....	2	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1
Syphilitic meningitis	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total enthetic	....	....	....	....	1	2	3	4	1	....	....	....	1	....	....	....	....	....	1	....	2	....	1	....	....	1	1	1

Purpura																												
Alcoholism			1		3		1	3	2			1				1	2		1		4		1	2	4		1	
Athrepsia					1	1																						
Scorbutus	1				1																							
Total dietic	1	1	2	2	8	6	7	11	4		1	2	1	2	2	4	4	3	2		9	5	5	6	4	1	3	1
Order 4.—*Parasitic.*																												
Thrush							1	1																				
Total parasitic							1	1																				
Total zymotic diseases	28	18	17	24	108	114	99	127	33	20	5	21	19	10	8	11	26	17	12	4	78	47	25	36	18	23	11	11
CLASS II.—CONSTITUTIONAL DISEASES.																												
Order 1.—*Diathetic.*																												
Arthritis deformans						1																						
Rheumatism		1			4	2			1	1	1	1	1	2				2			2	5	1	1	2		1	1
Dropsy (ascites)				1				1																				
Anæmia		1			1	2						1				1		1				1		2	1			
Goitre, exophthalmic																												
Cancer of stomach																				1				1				
uterus	1			1	7		1	1		1	1	2	2	2							2	3	1	2				
liver				1		4		3		2		1		2		1		2		1		6		3		1		1
breast		1			1	3	1					1		1						1		1		2	1			
face						1				1		1				2						1		3				2
throat					1	1											1				1							
abdomen								1	1												1							
pylorus						2																						
rectum																									1	2		
tongue	1				1																					1		
maxillaries					1																							
pancreas					1																				1			
kidney				1		1		1									1				1							
sigmoid flexure								1											2				2					
vagina						1														1				1				
bladder								1																				
neck	1				1								1								1							
œsophagus	1				1																				1	1		
lungs			1				1										1				1							
scrotum									1												1							
larynx															1								1					
Canerum oris																	1				1							
Eczema pustulosum																												
Elephantiasis																												
Total diathetic	4	3	1	4	19	18	3	9	3	5	2	7	4	7	1	4	4	5	2	4	11	17	5	15	7	5	1	4

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	1897.																											
	February.				March.				Total third quarter.				April.				May.				June.				Total fourth. quarter.			
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS I.—ZYMOTIC DISEASES.																												
Order 1.—*Miasmatic.*																												
Measles	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....
Scarlet fever	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Diphtheria	3	5	1	1	1	1	....	1	6	11	1	3	2	1	....	....	3	2	2	1	6	2	1	3	11	5	3	4
Croup	1	....	....	1	....	....	....	....	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Whooping cough	3	2	1	....	....	2	3	....	4	6	4	3	....	3	....	....	1	1	....	1	3	....	8	8	4	4	8	9
Typhoid fever	1	1	....	2	....	2	....	2	7	7	2	5	2	....	2	....	2	....	3	1	1	3	4	1	5	3	9	2
Typhomalarial fever	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....
Intermittent fever	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....
Remittent fever	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	1	....	....	....	1	....	1
Congestive chills	....	....	....	....	....	1	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Malarial fevers	....	1	....	....	....	....	....	....	....	1	....	....	1	....	....	....	1	1	....	1	5	....	....	....	7	1	....	1
Influenza (grippe)	18	20	4	10	5	14	2	3	27	42	11	17	5	4	....	4	1	1	1	1	1	....	....	....	7	5	1	5
Erysipelas	....	....	....	....	1	....	....	....	1	1	....	....	1	1	....	....	1	....	....	....	....	....	....	....	2	1	....	....
Septicæmia	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Pyæmia	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	1	....	....	1	1	....
Carbuncle	....	....	....	....	1	1	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Diarrhea	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	....	....	....	1	....	6	2	1	....	6	4
Dysentery	2	....	....	....	....	....	....	....	3	....	....	....	....	....	....	....	....	....	....	1	2	1	1	1	2	1	1	2
Enterocolitis	....	1	....	....	....	....	1	1	....	1	1	1	1	....	....	....	1	....	....	....	2	4	3	1	4	4	3	1
Cholera infantum	....	....	....	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	....	....	9	5	3	5	9	5	3	5
morbus	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1
Subacute milk infection	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Mumps	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total miasmatic	28	31	6	14	8	21	7	7	50	73	20	30	12	10	2	7	10	5	6	7	31	18	27	21	53	33	35	35
Order 2.—*Enthetic.*																												
Pemphigus (neonatorum)	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Syphilis, congenital	....	....	1	2	1	....	3	....	1	....	5	2	....	....	1	3	....	....	....	1	....	1	1	3	....	1	2	7
tertiary	....	....	1	....	....	....	....	....	....	1	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
Syphilitic meningitis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....
Total enthetic	....	....	2	2	1	....	3	....	1	1	6	3	....	....	1	3	....	....	....	2	....	1	1	3	....	1	2	8

Inanition	1	1	1	5	1	....	1	1	2	1	4	7	....	2	1	....	1	....	....	1	....	....	1	2	1	4	2	3
Malnutrition	....	....	....	1	....	....	....	....	....	1	....	1	....	....	....	....	....	....	1	....	....	....	....	2	....	....	1	2
Purpura	....	....	....	....	....	1	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	2	....	....
Alcoholism	1	....	....	....	....	1	....	....	5	1	1	....	....	....	....	....	1	....	1	....	....	....	1	1	1	....	2	1
Athrepsia	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....
Scorbutus	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total dietic	2	1	1	6	1	2	1	1	7	4	5	8	....	3	1	....	2	....	2	1	....	2	2	5	2	5	5	6
Order 4.—*Parasitic.*																												
Thrush	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total parasitic	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total zymotic diseases	30	32	9	22	10	23	11	8	58	78	31	41	12	13	4	10	12	5	8	10	31	21	30	29	55	39	42	49
CLASS II.—CONSTITUTIONAL DISEASES.																												
Order 1.—*Diathetic.*																												
Arthritis deformans	....	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Rheumatism	....	1	1	....	....	2	....	....	2	3	2	1	1	....	....	....	....	3	2	1	....	....	1	....	1	3	3	1
Dropsy (ascites)	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1
Anæmia	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....	1	....	....	....	....	....	....	....	....	1	....	....	1
Goitre, exophthalmic	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Cancer of stomach	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....
uterus	....	....	....	....	2	1	....	1	2	1	....	1	1	....	1	1	....	1	....	1	....	2	1	....	1	3	2	2
liver	....	2	....	1	....	3	....	1	....	6	....	3	....	1	....	3	....	1	....	1	....	1	....	2	....	3	....	6
breast	....	1	....	1	3	....	....	....	4	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
face	....	3	....	....	....	1	....	....	....	4	....	2	....	1	....	....	....	2	....	....	....	1	....	....	....	4	....	....
throat	1	....	....	....	....	....	....	....	1	....	....	....	....	1	....	....	1	....	....	....	....	....	....	....	1	1	....	....
abdomen	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
pylorus	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	....	....	1	1	....	....
rectum	....	....	....	....	....	....	....	....	1	2	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....
tongue	....	....	....	1	1	....	....	....	1	1	....	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1
maxillaries	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
pancreas	....	....	....	....	2	....	....	....	3	....	....	....	....	....	....	1	....	....	....	....	....	1	....	....	....	1	....	1
kidney	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....
sigmoid flexure	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
vagina	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
bladder	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
neck	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	1	....	....	....	....
œsophagus	....	....	....	....	1	....	....	....	1	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
lungs	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
scrotum	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
larynx	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1	....	....
Canerum oris	....	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Eczema pustulosum	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1	....	....	....	....	....	....	....	1	1
Elephantiasis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1
Total diathetic	2	7	2	3	9	8	....	2	18	20	3	9	4	4	1	9	2	8	3	4	1	7	2	2	7	19	6	15

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	AGE OF DECEDENT.																									Per cent of each cause to total mortality under 5 years of age.
	Under 1 year.				1 to 2 years.				2 to 3 years.				3 to 4 years.				4 to 5 years.				Total under 5 years.				Total.	
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS I.—ZYMOTIC DISEASES.																										
Order 1.—*Miasmatic.*																										
Measles	....	1	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	1	3	0.16
Scarlet fever	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Diphtheria	....	1	2	1	7	5	3	3	4	2	1	2	5	9	2	4	5	1	1	1	21	18	9	11	59	3.18
Croup	2	....	....	....	....	....	....	....	....	....	....	2	....	....	....	....	....	....	....	....	2	....	....	2	4	.22
Whooping cough	7	10	10	10	2	4	7	3	3	....	1	1	....	1	....	3	....	....	....	....	12	15	18	17	62	3.34
Typhoid fever	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	2	1	....	....	2	3	.16
Typhomalarial fever	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Intermittent fever	2	2	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	2	2	1	....	5	.27
Remittent fever	1	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1	....	2	.11
Congestive chills	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Malarial fevers	....	....	....	1	1	....	....	....	1	....	....	....	1	....	....	....	....	....	....	1	3	....	....	2	5	.27
Influenza (grippe)	2	2	....	1	....	....	1	....	....	1	....	....	....	....	....	....	....	....	....	....	2	3	1	1	7	.38
Erysipelas	1	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	2	....	....	3	.16
Septicæmia	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	2	....	....	1	3	.16
Pyæmia	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Carbuncle	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Diarrhœa	9	7	17	21	1	1	2	2	....	....	....	....	....	....	....	....	....	....	....	....	10	8	19	23	60	3.24
Dysentery	3	1	2	3	2	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	5	1	2	5	13	.70
Enterocolitis	21	24	13	16	6	2	....	....	....	....	....	....	1	1	....	....	....	....	....	....	28	27	13	16	84	4.53
Cholera infantum	33	38	45	43	6	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	39	38	45	43	165	8.90
morbus	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1	....	2	.11
Subacute milk infection	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	.05
Mumps	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total miasmatic	84	88	91	97	25	12	15	11	9	3	2	5	7	11	2	7	6	1	1	4	131	115	111	124	481	25.96
Order 2.—*Enthetic.*																										
Pemphigus (neonatorum)	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1	.05
Syphilis, congenital	3	2	9	11	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	2	9	11	25	1.35
tertiary	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Syphilitic meningitis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total enthetic	3	3	9	11	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	3	9	11	26	1.40

Malnutrition	3	7	4	8	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	7	4	8	22	1.18
Purpura	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Alcoholism	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Athrepsia	1	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	2	....	....	3	.16
Scorbutus	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	.05
Total dietic	12	16	16	23	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	13	16	16	23	68	3.66
Order 4.—*Parasitic.*																										
Thrush	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	2	.11
Total parasitic	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	2	.11
Total zymotic diseases	99	107	117	132	26	12	15	11	9	3	2	5	7	11	2	7	6	1	1	4	147	134	137	159	577	31.13
CLASS II.—CONSTITUTIONAL DISEASES.																										
Order 1.—*Diathetic.*																										
Arthritis deformans	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	1	.05
Rheumatism	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Dropsy (ascites)	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Anæmia	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Goitre, exophthalmic	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Cancer of stomach	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
uterus	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
liver	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
breast	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
face	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
throat	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
abdomen	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
pylorus	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
rectum	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
tongue	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
maxillaries	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
pancreas	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
kidney	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
sigmoid flexure	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
vagina	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
bladder	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
neck	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
œsophagus	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
lungs	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
scrotum	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
larnyx	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Canerum oris	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Eczema pustulosom	....	....	1	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	1	1	2	.11
Elephantiasis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total diathetic	....	....	1	....	....	....	....	....	....	....	....	1	....	....	....	....	1	....	....	....	1	....	1	1	3	.16

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	AGE OF DECEDENT.																											
	5 to 10 years.				10 to 20 years.				20 to 30 years.				30 to 40 years.				40 to 50 years.				50 to 60 years.				60 to 70 years.			
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS I.—ZYMOTIC DISEASES.																												
Order 1.—*Miasmatic.*																												
Measles	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Scarlet fever	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Diphtheria	16	17	3	6	3	2	1	2	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Croup	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Whooping cough	....	1	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Typhoid fever	2	2	5	3	10	12	6	10	20	10	11	9	10	....	4	6	2	5	2	1	1	2	1	....	4	4	....	....
Typhomalarial fever	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	....	....	1	1	1	....	....
Intermittent fever	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	1	....	....
Remittent fever	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	2	....	2	....	....	....	1	1	....
Congestive chills	....	1	....	1	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Malarial fevers	1	1	....	....	....	....	1	1	....	2	....	....	....	1	....	1	1	1	....	....	1	2	....	....	3	....	....	2
Influenza (grippe)	....	....	....	....	1	1	2	2	2	2	....	3	3	3	....	3	4	7	1	3	4	4	2	2	4	11	5	6
Erysipelas	....	....	....	....	....	....	....	....	1	....	....	1	....	1	....	....	....	2	....	....	1	2	....	....	1	....	....	....
Septicæmia	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Pyæmia	....	....	....	....	....	....	....	....	1	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....
Carbuncle	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	....	....	....	1	....	....
Diarrhœa	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	3	....	....	....
Dysentery	....	....	....	....	....	....	....	1	1	....	....	2	1	2	....	....	1	1	1	....	2	1	....	1	1	3	1	....
Enterocolitis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Cholera infantum	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
morbus	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1	....	....
Subacute milk infection	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Mumps	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....
Total miasmatic	23	22	10	11	15	15	10	16	25	15	11	15	15	7	5	12	8	16	4	7	13	13	3	6	18	23	7	8
Order 2.—*Enthetic.*																												
Pemphigus (neonatorum)	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Syphilis, congenital	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
tertiary	....	....	....	....	....	....	....	....	....	1	2	....	....	....	....	1	....	....	1	....	1	....	....	....	....	....	....	2
Syphilitic meningitis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
Total enthetic	....	....	....	....	....	....	....	....	....	1	2	....	....	....	....	1	....	....	1	....	1	....	....	....	....	....	....	3

Paralysis																				
Hemiplegia	27	.47	.10	.09	11	8	7	1	19	8	18	9	2				1			
Paraplegia	11	.20	.02	.09	1	2	3	5	3	8	4	7								1
Cerebral embolism	5	.09	.01	.03	1	1	1	2	2	3	2	3	1				1			1
Locomotor ataxia	9	.15	.05		5	4			9		5	4	1	1						
Myelitis	10	.17	.05	.01	6	3		1	9	1	6	4	1							
Cerebral thrombus	4	.07	.01	.02		2		2	2	2		4								
Œdema of brain	6	.10	.03	.01	3	2	1		5	1	4	2					1			
Insolation	4	.07	.02	.01	2	1	1		3	1	3	1					1	1		
Neurasthenia	43	.75	.20	.06	29	9	4	1	38	5	33	10	2		1		26	9	3	1
Multiple neuritis	8	.14	.04		2	6			8		2	6		2			1			
Tetanus (idiopathic)	5	.09	.03		2	3			5		2	3		1				1		
Cerebral tumor	5	.09	.01	.03	1	1	2	1	2	3	3	2			1					
Hæmatomyelitis	7	.11	.03	.02	4	1	2		5	2	6	1			1		1			
Sclerosis of cord	1	.02			1				1		1						1			
Glyoma cerebri	1	.01				1			1			1								
Vertigo	2	.03	.01			1	1		1	1	1	1								
Chorea	1	.02	.01				1			1	1									
	1	.01	.01				1			1	1									
Total nervous system	685	11.94	2.32	2.81	273	164	138	110	437	248	411	274	23	15	19	13	49	24	11	10
Order 2.—*Circulatory organs.*																				
Valvular disease of the heart	308	5.37	.93	1.47	104	74	64	66	178	130	168	140	7	3	4	7	5	5	5	5
Hydropericardium	4	.07		.06			2	2		4	2	2								1
Pericarditis	13	.22	.02	.12	1	2	5	5	3	10	6	7	1		1				1	
Endocarditis	9	.15	.03	.03	4	2	3		6	3	7	2		1						
Fatty degeneration of heart	18	.32	.06	.07	5	7	3	3	12	6	8	10		2			2		1	1
Dilatation of heart	8	.14	.03	.02	5	1		2	6	2	5	3				1	1			
Hypertrophy of heart	9	.15	.02	.06	1	3		5	4	5	1	8						1		1
Cardiac thrombosis	2	.03	.01			2			2			2								
Myocarditis	8	.14	.03	.02	1	5	1	1	6	2	2	6								
Paralysis of heart	1	.02		.01				1		1		1				1				
Angina pectoris	15	.28	.06	.03	10	2	1	2	12	3	11	4								
Atheromatous degeneration	3	.05	.02		3				3		3		2							
Heart disease, undefined	2	.03		.02			2			2	2				1				1	
Rupture of artery (coronary)	4	.07	.02	.01	2	1	1		3	1	3	1								
Aneurism of aorta	8	.14	.02	.06	3		5		3	5	8									
Aortic stenosis	6	.10	.02	.03	1	2	2	1	3	3	3	3								
Cardiac asthma	5	.09	.02	.02	1	2	2		3	2	3	2								
Total circulatory organs	423	7.37	1.29	2.02	141	103	91	88	244	179	232	191	10	6	6	9	8	6	8	8
Order 3.—*Respiratory organs.*																				
Pneumonia	509	8.87	1.44	2.72	151	118	126	114	269	240	277	232		1	3	7	3	1	5	
Bronchitis	114	1.99	.30	.66	26	31	27	30	57	57	53	61		1	3	2	1	1	1	1
Congestion of lungs	79	1.38	.18	.54	20	12	19	28	32	47	39	40		1		1	1			1
Œdema of lungs	6	.10	.01	.04	2		1	3	2	4	3	3								
Abscess of lungs	4	.07	.01	.02	2		2		2	2	4									
Gangrene of lungs	6	.10	.02	.02	4		1	1	4	2	5	1	1							1
Pleurisy	14	.25	.03	.08	5	2	5	2	7	7	10	4	1	1	1	2			1	

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	AGE OF DECEDENT.																SOCIAL RELATIONS.							
	70 to 80 years.				80 to 90 years.				90 to 100 years.				Unknown age.				Married.				Single.			
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS I.—ZYMOTIC DISEASES.																								
Order 1.—*Miasmatic.*																								
Measles																						1	1	1
Scarlet fever																					1			
Diphtheria																					40	38	13	19
Croup																					4			2
Whooping cough																					12	16	20	17
Typhoid fever	1	1															20	9	7	14	29	23	21	17
Typhomalarial fever																	1			2	1			
Intermittent fever						1											1				2	2	1	
Remittent fever		1																2		3	1	1	1	
Congestive chills		1				1											1	1				1		1
Malarial fevers	2	1			1												3	3		1	5	3	1	3
Influenza (grippe)	14	12	1	3	1	4		1									10	13	4	6	18	10	3	6
Erysipelas						2												5		1	3	2		
Septicæmia																					2			1
Pyæmia																						1	1	
Carbuncle		1			1												2				1			
Diarrhœa	1			1													2			2	10	8	19	23
Dysentery	1			2													3	4		3	7	2	3	7
Enterocolitis																					28	27	13	16
Cholera infantum		1				1															39	38	45	43
morbus		1																1			1		1	2
Subacute milk infection																					1			
Mumps																								
Total miasmatic	19	19	1	6	3	9		1									43	38	11	32	205	173	145	158
Order 2.—*Enthetic.*																								
Pemphigus (neonatorum)																						1		
Syphilis, congenital																					3	2	9	11
tertiary																		1		2	1		1	
Syphilitic meningitis																				2				
Total enthetic																		1		4	4	3	10	11

Athrepsia																					1	2		
Scorbutus																					1			
Total dietic						1	1									4	1		3	21	18	21	25	
Order 4.—*Parasitic.*																								
Thrush																						1	1	
Total parasitic																						1	1	
Total zymotic diseases	19	19	1	6	3	10	1	1								47	40	11	39	230	194	177	195	
CLASS II.—CONSTITUTIONAL DISEASES.																								
Order 1.—*Diathetic.*																								
Arthritis deformans																	1			1				
Rheumatism	1	7				1					1					6	4	6	1	3	2		1	
Dropsy (ascites)																			1				1	
Anæmia																2			1	1	3		2	
Goitre, exophthalmic		1																						
Cancer of stomach	1	1		3			1									7	3	3	3	4	2			
uterus		1		1													14		8				2	
liver		1		1												2	3	1	1	2				
breast		1															6		1		3			
face						1										3	1			1				
throat																1			1	1				
abdomen																1	2							
pylorus																	1			1	1			
rectum																	1		1	1			1	
tongue																				1				
maxillaries	2															3								
pancreas																1			1					
kidney																		1	1					
sigmoid flexure																	1							
vagina																							1	
bladder																2				1				
neck																2	1							
œsophagus																1		1						
lungs																1								
scrotum																		1						
larynx																1	1							
Cancrum oris																								
Eczema pustulosum																						1	1	
Elephantiasis																							1	
Total diathetic	4	12		5		2	1				1					33	39	13	20	17	11	1	10	

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	SOCIAL RELATIONS.								NATIVITY.													
	Widow or widower.				Unknown.				District of Columbia.				Other parts of United States.				Foreign.				Unknown.	
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.	C.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS I.—ZYMOTIC DISEASES.																										
Order 1.—*Miasmatic.*																										
Measles										1	1	1														
Scarlet fever									1																	
Diphtheria									37	36	13	19	3	2												
Croup									3			2	1													
Whooping cough									12	16	20	17														
Typhoid fever	2	4	1						22	13	17	15	22	18	11	16	7	5	1							
Typhomalarial fever		2							1			2	1					2								
Intermittent fever	1	2							3	2	1		1	1				1								
Remittent fever		1	1						1	1	2			3		3										
Congestive chills		1								2		1						1	1							
Malarial fevers	4	2		2					2			3	6	6	1	3	4	2								
Influenza (grippe)	7	24	5	12					13	8	4	6	18	24	8	18	4	15								
Erysipelas	3									2			4	4		1	2	1								
Septicæmia									2			1														
Pyæmia															1			1								
Carbuncle		2								2							3									
Diarrhœa	2								10	8	19	24	1			1	3									
Dysentery	2	2	1	1					6	3	4	10	3	4		1	3	1								
Enterocolitis		2							28	28	13	16		1												
Cholera infantum									39	38	45	43														
morbus		1							1		1			1		2		1								
Subacute milk infection									1																	
Mumps				1												1										
Total miasmatic	21	43	8	16					182	160	140	160	60	64	21	46	27	30	1							
Order 2.—*Enthetic.*																										
Pemphigus (neonatorum)										1																
Syphilis, congenital									3	2	9	11														
tertiary			2											1	3	2	1									
Syphilitic meningitis																2										
Total enthetic			2						3	3	9	11		1	3	4	1									

Paralysis		1		1		1			2	2	3	1	1				1	1				1	1	1	2	1	1	1
Hemiplegia											1	1		1											2			
Paraplegia			1					1			1	1																
Cerebral embolism		1								1											1				1			
Locomotor ataxia						1				1							2				2				4			
Myelitis													1		1		1									2		1
Cerebral thrombus										2			1												1			
Œdema of brain													1												1			
Insolation																	1								1			
Neurasthenia					1					1			1												1			
Multiple neuritis				1					1								1	1							1	1		
Tetanus (idiopathic)		1									1			1												1		
Cerebral tumor	1			2	1	1		3	1	1																		
Hæmatomyelitis																												
Sclerosis of cord																												
Glyoma cerebri																												
Vertigo																			1								1	
Chorea																						1					1	
Total nervous system	15	6	6	3	22	16	10	9	54	33	33	19	20	15	7	10	24	12	8	12	23	8	11	12	67	35	26	34
Order 2.—*Circulatory organs.*																												
Valvular disease of the heart	12	8	4	6	8	13	6	2	31	28	14	17	10	3	5	2	13	5	9	5	10	3	8	10	33	11	22	17
Hydropericardium																												
Pericarditis				2		1	1	1		1	1	3		1					1	1						1	1	1
Endocarditis									1				1		1										1		1	
Fatty degeneration of heart								1	1	1	1	1		1		1		1			1		1		1	2	1	1
Dilatation of heart	1								3																			
Hypertrophy of heart		1								1						1		1						2		1		3
Cardiac thrombosis										1																		
Myocarditis								1		1		1			1		1					1			1	1	1	
Paralysis of heart																												
Angina pectoris			1	1	1	2			2	2	1	1	1				3				1				5			
Atheromatous degeneration																												
Heart disease, undefined																												
Rupture of artery (coronary)		1								1																		
Aneurism of aorta			1				2		1		3				2						1				1		2	
Aortic stenosis	1	1							1	1	1																	
Cardiac asthma		2			1				1	2													1				1	
Total circulatory organs	14	13	6	9	10	16	9	5	41	39	21	23	12	5	9	4	17	7	10	6	13	4	10	12	42	16	29	22
Order 3.—*Respiratory organs.*																												
Pneumonia	35	26	17	21	24	17	22	13	84	64	55	52	19	12	13	13	7	6	10	7	5	5	6	3	31	23	29	23
Bronchitis		6	1	8	5	3	5	6	9	18	10	18	3	1	1	3			1		3	1	3	1	6	2	5	4
Congestion of lungs	4		6	5	2	3	2	6	10	4	10	16	2	3	1	3		2	2	3	1				3	5	3	6
Œdema of lungs					1			1	2			1								1				1				2
Abscess of lungs	1								1		1				1												1	
Gangrene of lungs	1								1				1						1						1		1	
Pleurisy													2		1		1								3		1	

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	Total deaths from each cause.	Per cent of each cause to total mortality.	DEATH RATE. Deaths per 1,000 inhabitants.		RECAPITULATION. Total by color and sex.				Total by color.		Total by sex.		1896. July.				August.			
					W.		C.						W.		C.		W.		C.	
			W.	C.	M.	F.	M.	F.	W.	C.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS II.—CONSTITUTIONAL DISEASES.																				
Order 2.—*Tubercular.*																				
Phthisis pulmonalis	776	13.54	1.94	4.67	208	157	205	206	365	411	413	363	17	18	23	16	13	18	16	8
Tuberculosis	82	1.43	.13	.66	11	13	23	35	24	58	34	48	....	....	3	2	1	2	3	3
Marasmus	128	2.23	.42	.61	35	40	29	24	75	53	64	64	5	5	4	3	8	7	4	4
Scrofula	4	.07	.....	.03	.....	1	2	1	1	3	2	2	....	....	....	....	....	....	....	1
Tubercular enteritis	2	.03	.01	.....	.....	2	.....	.....	2	.....	.....	.....	....	....	....	....	....	....	....	....
meningitis	29	.51	.10	.13	9	9	7	4	18	11	16	13	....	1	2	....	....	3	1	1
laryngitis	2	.03	.01	.....	2	.....	.....	.....	2	.....	2	.....	....	....	....	....	....	....	....	....
Tubes mesenterica	13	.22	.04	.06	5	3	2	3	8	5	7	6	....	1	....	....	....	....	1	....
Hydrocephalus	4	.07	.01	.02	2	.....	.....	2	2	2	2	2	....	....	....	....	....	....	....	1
Rickets	5	.09	.....	.04	1	.....	1	3	1	4	2	3	....	....	....	....	....	....	....	....
Hip-joint disease	3	.05	.....	.03	.....	.....	1	2	.....	3	1	2	....	....	....	....	....	....	....	....
Osteitis, tubercular, multiple	1	.01	.....	.....	1	.....	.....	.....	1	.....	1	.....	....	....	....	....	....	....	....	....
Peritonitis, tubercular	2	.03	.01	.....	1	1	.....	.....	2	.....	1	1	....	....	....	....	....	....	....	....
adenitis	1	.02	.....	.....	1	.....	.....	.....	1	.....	1	.....	....	....	....	....	....	....	....	....
Pott's disease	1	.02	.....	.....	1	.....	.....	.....	1	.....	1	.....	....	....	....	....	....	....	....	....
Total tubercular	1,053	18.35	2.67	6.25	277	226	270	280	503	550	547	506	22	25	32	21	22	30	25	18
Total constitutional diseases	1,247	21.73	3.35	6.93	332	300	287	328	632	615	619	628	31	34	33	24	28	36	26	20
CLASS III.—LOCAL DISEASES.																				
Order 1.—*Nervous system.*																				
Meningitis—cerebral	53	.93	.21	.19	20	17	11	5	37	16	31	22	6	1	2	....	1	4	....	1
cerebro-spinal	15	.27	.06	.07	6	3	3	3	9	6	9	6	....	....	....	1	....	1	....	....
spinal	1	.01	.....	.....	1	.....	.....	.....	1	.....	1	.....	....	....	....	....	....	....	....	....
Apoplexy	205	3.57	.73	.75	82	56	29	38	138	67	111	94	5	5	7	5	5	4	1	3
Epilepsy	26	.46	.08	.13	11	4	7	4	15	11	18	8	....	1	....	2	2	....	2	....
Insanity (organic brain disease)	56	.98	.25	.12	36	10	6	4	46	10	42	14	3	2	....	....	4	1	....	....
Softening of brain	10	.17	.03	.04	4	2	3	1	6	4	7	3	....	....	....	1	....	....	1	....
Congestion of brain	38	.66	.12	.19	13	9	9	7	22	16	22	10	....	1	1	....	1	1	1	....
Inflammation of brain	4	.07	.....	.03	.....	1	.....	3	1	3	.....	4	....	....	....	1	....	....	....	....
Convulsions	108	1.89	.20	.79	26	18	39	30	39	69	65	43	2	1	6	3	6	....	2	3
Trismus nascentium	18	.32	.04	.09	4	4	6	2	8	8	10	8	....	....	1	....	....	....	1	....
Abscess of brain	3	.05	.01	.01	2	.....	1	.....	2	1	3	.....	....	....	....	....	....	....	....	....

Hemiplegia	11	.20	.02	.09	1	2	3	5	3	8	4	7	....	....	....	....	....	....	....	1
Paraplegia	5	.09	.01	.03	1	1	1	2	2	3	2	3	1	....	....	....	....	1	....	1
Cerebral embolism	9	.15	.05	.....	5	4	.....	.....	9	.....	5	4	1	1	....	....	....	....	....	....
Locomotor ataxia	10	.17	.05	.01	6	3	.....	1	9	1	6	4	1	....	....	....	....	....	....	....
Myelitis	4	.07	.01	.02	.....	2	.....	2	2	2	.....	4	....	....	....	....	....	....	....	....
Cerebral thrombus	6	.10	.03	.01	3	2	1	.....	5	1	4	2	....	....	....	....	1	....	....	....
Œdema of brain	4	.07	.02	.01	2	1	1	.....	3	1	3	1	....	....	....	....	1	1	....	....
Insolation	43	.75	.20	.06	29	9	4	1	38	5	33	10	2	....	1	....	26	9	3	1
Neurasthenia	8	.14	.04	.....	2	6	.....	.....	8	.....	2	6	....	2	....	....	1	....	....	....
Multiple neuritis	5	.09	.03	.....	2	3	.....	.....	5	.....	2	3	....	1	....	....	....	1	....	....
Tetanus (idiopathic)	5	.09	.01	.03	1	1	2	1	2	3	3	2	....	....	1	....	....	....	....	....
Cerebral tumor	7	.11	.03	.02	4	1	2	.....	5	2	6	1	....	....	1	....	1	....	....	....
Hæmatomyelitis	1	.02	.....	.....	1	.....	.....	.....	1	.....	1	.....	....	....	....	....	1	....	....	....
Sclerosis of cord	1	.01	.....	.....	.....	1	.....	.....	1	.....	.....	1	....	....	....	....	....	....	....	....
Glyoma cerebri	2	.03	.01	.....	.....	1	1	.....	1	1	1	1	....	....	....	....	....	....	....	....
Vertigo	1	.02	.01	.....	.....	.....	1	.....	.....	1	1	.....	....	....	....	....	....	....	....	....
Chorea	1	.01	.01	.....	.....	.....	1	.....	.....	1	1	.....	....	....	....	....	....	....	....	....
Total nervous system	685	11.94	2.32	2.81	273	164	138	110	437	248	411	274	23	15	19	13	49	24	11	10
Order 2.—*Circulatory organs.*																				
Valvular disease of the heart	308	5.37	.93	1.47	104	74	64	66	178	130	168	140	7	3	4	7	5	5	5	5
Hydropericardium	4	.07	.....	.05	.....	.....	2	2	.....	4	2	2	....	....	....	....	....	....	....	1
Pericarditis	13	.22	.02	.12	1	2	5	5	3	10	6	7	1	....	1	....	....	....	1	....
Endocarditis	9	.15	.03	.03	4	2	3	.....	6	3	7	2	....	1	....	....	....	....	....	....
Fatty degeneration of heart	18	.32	.06	.07	5	7	3	3	12	6	8	10	....	2	....	....	2	....	1	1
Dilatation of heart	8	.14	.03	.02	5	1	.....	2	6	2	5	3	....	....	....	1	1	....	....	....
Hypertrophy of heart	9	.15	.02	.06	1	3	.....	5	4	5	1	8	....	....	....	....	....	1	....	1
Cardiac thrombosis	2	.03	.01	.....	.....	2	.....	.....	2	.....	.....	2	....	....	....	....	....	....	....	....
Myocarditis	8	.14	.03	.02	1	5	1	1	6	2	2	6	....	....	....	....	....	....	....	....
Paralysis of heart	1	.02	.....	.01	.....	.....	.....	1	.....	1	.....	1	....	....	....	1	....	....	....	....
Angina pectoris	15	.28	.06	.03	10	2	1	2	12	3	11	4	....	....	....	....	....	....	....	....
Atheromatous degeneration	3	.05	.02	.....	3	.....	.....	.....	3	.....	3	.....	2	....	....	....	....	....	....	....
Heart disease, undefined	2	.03	.....	.02	.....	.....	2	.....	.....	2	2	.....	....	....	1	....	....	....	1	....
Rupture of artery (coronary)	4	.07	.02	.01	2	1	1	.....	3	1	3	1	....	....	....	....	....	....	....	....
Aneurism of aorta	8	.14	.02	.06	3	.....	5	.....	3	5	8	.....	....	....	....	....	....	....	....	....
Aortic stenosis	6	.10	.02	.03	1	2	2	1	3	3	3	3	....	....	....	....	....	....	....	....
Cardiac asthma	5	.09	.02	.02	1	2	2	.....	3	2	3	2	....	....	....	....	....	....	....	....
Total circulatory organs	423	7.37	1.29	2.02	141	103	91	88	244	179	232	191	10	6	6	9	8	6	8	8
Order 3.—*Respiratory organs.*																				
Pneumonia	509	8.87	1.44	2.72	151	118	126	114	269	240	277	232	....	1	3	7	3	1	5	....
Bronchitis	114	1.99	.30	.66	26	31	27	30	57	57	53	61	....	1	3	2	1	1	1	1
Congestion of lungs	79	1.38	.18	.54	20	12	19	28	32	47	39	40	....	1	....	1	1	....	....	1
Œdema of lungs	6	.10	.01	.04	2	.....	1	3	2	4	3	3	....	....	....	....	....	....	....	....
Abscess of lungs	4	.07	.01	.02	2	.....	2	.....	2	2	4	.....	....	....	....	....	....	....	....	....
Gangrene of lungs	6	.10	.02	.02	4	.....	1	1	4	2	5	1	1	....	....	....	....	....	....	1
Pleurisy	14	.25	.03	.08	5	2	5	2	7	7	10	4	1	1	1	2	....	....	1	....

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	1896.																								1897.			
	September.				Total first quarter.				October.				November.				December.				Total second quarter.				January.			
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS II.—CONSTITUTIONAL DISEASES.																												
Order 2.—*Tubercular.*																												
Phthisis pulmonalis	11	14	20	25	41	50	59	49	22	17	17	15	20	8	9	13	18	9	29	18	60	34	48	46	14	20	19	22
Tuberculosis	....	....	....	3	1	2	6	8	2	3	2	3	....	2	....	2	1	2	2	2	3	7	4	7	2	1	2	3
Marasmus	7	7	1	1	20	19	9	8	3	2	3	1	1	5	2	4	4	2	2	2	8	9	7	7	....	4	....	1
Scrofula	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Tubercular enteritis	....	1	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....
meningitis	1	1	....	1	1	5	3	2	2	....	....	....	2	....	1	....	....	....	....	1	4	....	1	1	....	1	1	....
laryngitis	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	2	....	....	....	....	....	....	....
Tubes mesenterica	1	....	....	....	1	1	1	....	1	....	....	....	....	....	....	....	1	....	....	1	2	....	....	1	....	....	....	....
Hydrocephalus	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Rickets	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....
Hip-joint disease	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	1	....	....	....	....	....	....	1	1	....	....	....	....
Osteitis, tubercular, multiple	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....
Peritonitis, tubercular	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....
adenitis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Pott's disease	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total tubercular	20	23	21	30	64	78	78	69	31	22	23	19	25	17	13	20	24	13	26	24	80	52	62	63	16	26	22	26
Total constitutional diseases	24	26	22	34	83	96	81	78	34	27	25	26	29	24	14	24	28	18	28	28	91	69	67	78	23	31	23	30
CLASS III.—LOCAL DISEASES.																												
Order 1.—*Nervous system.*																												
Meningitis—cerebral	....	....	1	....	7	5	3	1	2	1	1	....	....	....	1	1	1	1	....	....	3	2	2	1	2	1	2	....
cerebro-spinal	....	1	1	....	....	2	1	1	....	....	....	....	....	....	....	....	1	1	....	....	1	1	....	....	1	....	2	....
spinal	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....
Apoplexy	7	4	2	1	17	13	10	9	10	8	3	3	3	6	1	3	10	7	3	4	23	21	7	10	3	2	4	1
Epilepsy	1	....	....	1	3	1	2	3	1	1	....	....	1	....	1	....	1	1	....	....	3	2	1	....	....	....	3	....
Insanity (organic brain disease)	5	....	....	....	12	3	....	....	5	1	1	....	2	1	3	1	4	1	1	....	11	3	5	1	1	1	....	1
Softening of brain	1	....	1	....	1	....	2	1	....	....	....	....	1	....	1	....	....	....	....	....	1	....	1	....	....	1	....	....
Congestion of brain	1	....	1	....	2	2	3	....	3	2	....	1	1	....	....	1	....	....	1	1	4	2	1	3	2	2	....	....
Inflammation of brain	....	....	....	1	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	4
Convulsions	1	2	7	5	7	2	14	11	2	1	5	1	1	2	2	1	1	1	2	3	4	3	9	4	1	....	1	....
Trismus nascentium	....	1	....	1	1	2	3	1	1	....	....	....	....	1	1	....	....	....	....	....	1	3	1	1	....	....	....	....
Abscess of brain	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....

Hemiplegia			1	1			1	2	1			1									1			1			1	1
Paraplegia					1	1		1																				
Cerebral embolism					1	1			1				1				1	2			3	2						
Locomotor ataxia				1	1			1					1	2							1	2						
Myelitis																				1				1				
Cerebral thrombus					1				1		1										1		1			2		
Œdema of brain					1	1					1												1					
Insolation					28	9	4	1																				
Neurasthenia					1	2				1								2				3						
Multiple neuritis						2																						
Tetanus (idiopathic)							1						1			1					1			1				
Cerebral tumor					1		1																					
Hæmatomyelitis					1																							
Sclerosis of cord						1				1												1						
Glyoma cerebri																		1	1			1	1					
Vertigo																												
Chorea																												
Total nervous system	17	8	15	11	89	47	45	34	30	16	13	6	12	13	12	8	21	20	9	9	63	49	34	23	17	11	17	7
Order 2.—*Circulatory organs.*																												
Valvular disease of the heart	3	5	3	6	15	13	12	18	9	9	6	5	6	8	10	5	10	5		4	25	22	16	14	11	7	4	9
Hydropericardium								1			1								1	1			2	1				
Pericarditis					1		2					1			1								1	1				
Endocarditis	1		2		1	1	2			1							1				1	1			1			
Fatty degeneration of heart		1			2	3	1	1					1					1			1	1			1	1	1	
Dilatation of heart	1				2			1						1						1		1		1	2			
Hypertrophy of heart						1		1	1											1	1			1				
Cardiac thrombosis														1								1				1		
Myocarditis														2				1				3				1		
Paralysis of heart								1																				
Angina pectoris				1				1	1				1				1				3			1				
Atheromatous degeneration					2												1				1							
Heart disease, undefined							2																					
Rupture of artery (coronary)			1				1										2				2							
Aneurism of aorta									1												1			1				
Aortic stenosis												1		1	1							1	1	1			1	
Cardiac asthma															1								1					
Total circulatory organs	5	6	6	7	23	18	20	24	12	10	7	7	8	13	13	5	15	7	1	7	35	30	21	19	17	10	6	9
Order 3.—*Respiratory organs.*																												
Pneumonia	4	3	4	4	7	5	12	11	5	5	13	6	11	10	7	12	13	11	10	10	29	26	30	28	25	21	16	18
Bronchitis	2	1	2	1	3	3	6	4	4	1		1	2	3	2	1	2	4	4	2	8	8	6	4	4	9	4	4
Congestion of lungs	2			1	3	1		3	2		1	1	1		3		1	2	2	2	4	2	6	3	4	1	2	5
Œdema of lungs																			1				1		1			
Abscess of lungs																	1				1						1	
Gangrene of lungs					1			1					1								1							
Pleurisy			1		1	1	3	2			1		1					1			1	1	1					

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	1897.																											
	February.				March.				Total third quarter.				April.				May.				June.				Total fourth quarter.			
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS II.—CONSTITUTIONAL DISEASES.																												
Order 2.—*Tubercular.*																												
Phthisis pulmonalis	24	16	17	22	19	8	19	21	57	44	55	65	18	13	14	16	17	8	16	13	15	8	13	17	50	29	43	46
Tuberculosis	1	1	1	1	1	1	1	5	4	3	4	9	1	....	2	4	....	....	5	4	2	1	2	3	3	1	9	11
Marasmus	2	2	1	3	2	2	5	2	4	8	6	6	2	1	3	2	....	1	2	....	1	2	2	1	3	4	7	3
Scrofula	....	....	2	....	....	....	....	....	....	....	2	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....
Tubercular enteritis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
meningitis	1	1	....	....	....	1	....	....	1	3	1	....	....	....	2	....	1	....	....	....	2	1	....	1	3	1	2	1
laryngitis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Tubes mesenterica	....	1	....	....	1	....	1	1	1	1	1	1	1	1	....	1	....	....	....	....	....	....	....	....	1	1	....	1
Hydrocephalus	1	....	....	....	....	....	....	1	1	....	....	1	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....
Rickets	....	....	....	....	1	....	....	1	1	....	....	1	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	2
Hip-joint disease	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Osteitis, tubercular, multiple	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Peritonitis, tubercular	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....
adenitis	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Pott's disease	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....
Total tubercular	30	21	21	27	24	12	26	31	70	59	69	84	23	15	21	23	19	10	23	18	21	12	17	23	63	37	61	64
Total constitutional diseases	32	28	23	30	33	20	26	33	88	79	72	93	27	19	22	32	21	18	26	22	22	19	19	25	70	56	67	79
CLASS III.—LOCAL DISEASES.																												
Order 1.—*Nervous system.*																												
Meningitis—cerebral	....	1	....	....	3	3	2	....	5	5	4	....	2	3	1	1	1	1	1	1	2	1	....	1	5	5	2	3
cerebro-spinal	....	....	....	....	2	....	....	1	3	....	2	1	1	....	....	....	1	....	....	1	....	....	....	....	2	....	....	1
spinal	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Apoplexy	7	2	2	1	6	5	1	5	21	9	7	7	5	6	3	5	10	3	1	3	6	4	1	4	21	13	5	12
Epilepsy	2	....	....	....	....	1	....	....	2	1	3	....	1	....	....	....	....	....	....	1	2	....	1	....	3	....	1	1
Insanity (organic brain disease)	1	....	1	....	3	2	....	....	5	3	1	1	3	....	....	....	3	1	....	....	2	....	....	2	5	1	....	2
Softening of brain	1	1	....	....	....	....	....	....	1	2	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....
Congestion of brain	1	....	1	....	1	....	2	....	4	2	3	....	....	....	....	1	1	2	....	3	2	1	2	....	3	3	2	4
Inflammation of brain	....	....	....	....	....	1	....	....	....	1	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1
Convulsions	2	....	....	1	3	....	4	2	5	2	5	7	3	3	3	1	1	2	3	3	6	1	2	4	10	6	11	8
Trismus nascentium	....	....	....	....	1	....	....	....	1	....	1	....	....	....	....	....	1	....	....	....	....	....	2	....	1	....	2	....
Abscess of brain	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....

Hemiplegia											1	1		1								1	1	1		2	1	1
Paraplegia			1					1			1	1																
Cerebral embolism		1								1											1				1			
Locomotor ataxia						1				1						2					2				4			
Myelitis														1		1		1								2		1
Cerebral thrombus										2			1												1			
Œdema of brain													1												1			
Insolation																	1								1			
Neurasthenia					1				1				1												1			
Multiple neuritis				1				1								1	1								1	1		
Tetanus (idiopathic)			1								1			1												1		
Cerebral tumor	1			2	1	1		3	1	1																		
Hæmatomyelitis																												
Sclerosis of cord																												
Glyoma cerebri																												
Vertigo																			1							1		
Chorea																						1				1		
Total nervous system	15	6	6	3	22	16	10	9	54	33	33	19	20	15	7	10	24	12	8	12	23	8	11	12	67	35	26	34
Order 2.—*Circulatory organs.*																												
Valvular disease of the heart	12	8	4	6	8	13	6	2	31	28	14	17	10	3	5	2	13	5	9	5	10	3	8	10	33	11	22	17
Hydropericardium																												
Pericarditis				2		1	1	1		1	1	3		1					1	1						1	1	1
Endocarditis									1				1		1										1		1	
Fatty degeneration of heart								1	1	1	1		1		1			1			1		1		1	2	1	1
Dilatation of heart	1								3																			
Hypertrophy of heart		1								1						1		1						2		1		3
Cardiac thrombosis										1																		
Myocarditis								1		1		1			1		1					1			1	1	1	
Paralysis of heart																												
Angina pectoris			1	1	1	2			2	2	1	1	1				3				1				5			
Atheromatous degeneration																												
Heart disease, undefined																												
Rupture of artery (coronary)		1								1																		
Aneurism of aorta			1				2		1		3				2						1				1		2	
Aortic stenosis	1	1							1	1	1																	
Cardiac asthma		2			1				1	2													1				1	
Total circulatory organs	14	13	6	9	10	16	9	5	41	39	21	23	12	5	9	4	17	7	10	6	13	4	10	12	42	16	29	22
Order 3.—*Respiratory organs.*																												
Pneumonia	35	26	17	21	24	17	22	13	84	64	55	52	19	12	13	13	7	6	10	7	5	5	6	3	31	23	29	23
Bronchitis		6	1	8	5	3	5	6	9	18	10	18	3	1	1	3			1		3	1	3	1	6	2	5	4
Congestion of lungs	4		6	5	2	3	2	6	10	4	10	16	2	3	1	3		2	2	3	1				3	5	3	6
Œdema of lungs					1			1	2			1								1				1				2
Abscess of lungs	1								1		1				1												1	
Gangrene of lungs	1								1				1						1						1		1	
Pleurisy													2		1		1								3		1	

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	SOCIAL RELATIONS.								NATIVITY.													
	Widow or widower.				Unknown.				District of Columbia.				Other parts of United States.				Foreign.				Unknown.			
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS II.—CONSTITUTIONAL DISEASES.																								
Order 2.—*Tubercular.*																								
Phthisis pulmonalis	18	29	16	22	....	....	....	....	79	65	87	134	91	74	118	72	38	18	....	....	....	....	....	....
Tuberculosis	3	2	1	3	....	....	....	....	6	6	13	20	3	5	10	15	2	2	....	....	....	....	....	....
Marasmus	1	....	....	....	....	....	....	....	33	40	29	24	2	....	....	....	....	....	....	....	....	....	....	....
Scrofula	....	....	....	....	....	....	....	....	....	....	2	1	....	1	....	....	....	....	....	....	....	....	....	....
Tubercular enteritis	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....
meningitis	....	....	....	....	....	....	....	....	8	8	7	4	1	....	....	....	....	1	....	....	....	....	....	....
laryngitis	....	....	....	....	....	....	....	....	....	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....
Tubes mesenterica	....	....	....	....	....	....	....	....	3	3	2	2	2	....	....	1	....	....	....	....	....	....	....	....
Hydrocephalus	....	....	....	....	....	....	....	....	2	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....
Rickets	....	....	....	....	....	....	....	....	1	....	1	3	....	....	....	....	....	....	....	....	....	....	....	....
Hip-joint disease	....	....	....	....	....	....	....	....	....	....	1	2	....	....	....	....	....	....	....	....	....	....	....	....
Ostelitis, tubercular, multiple	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Peritonitis, tubercular	1	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1	....	....	....	....	....	....	....
adenitis	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Pott's disease	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....
Total tubercular	23	32	17	25	....	....	....	....	134	123	142	192	102	81	128	88	41	22	....	....	....	....	....	....
Total constitutional diseases	28	56	20	43	....	....	....	....	142	138	146	197	129	116	141	131	61	46	....	....	....	....	....	....
CLASS III.—LOCAL DISEASES.																								
Order 1.—*Nervous system.*																								
Meningitis—cerebral	1	....	1	....	....	....	....	....	11	13	9	5	6	2	2	.....	3	2	....	....	....	....	....	....
cerebro-spinal	....	1	....	....	....	....	....	....	5	1	3	3	1	2	....	....	....	....	....	....	....	....	....	....
spinal	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Apoplexy	18	29	5	22	....	....	....	....	26	11	4	9	41	32	25	29	15	13	....	....	....	....	....	....
Epilepsy	3	1	....	....	....	....	....	....	....	....	3	2	8	2	4	2	3	2	....	....	....	....	....	....
Insanity (organic brain disease)	5	1	1	2	....	....	....	....	1	1	6	1	16	6	....	3	19	3	....	....	....	....	....	....
Softening of brain	1	2	....	....	....	....	....	....	....	....	3	....	1	1	....	1	3	1	....	....	....	....	....	....
Congestion of brain	1	2	1	1	....	....	....	....	11	3	7	5	1	4	2	2	1	2	....	....	....	....	....	....
Inflammation of brain										1		3												

Paraplegia		1	1	2						2				1	3	5		1														
Cerebral embolism	1	3		1					1	1			2	4		1	3															
Locomotor ataxia		1		1									4	2		2	1	1														
Myelitis		1												2		2																
Cerebral thrombus		1	1						1				2		1		2															
Œdema of brain	1								1		1		1				1															
Insolation	4			1					5	1	2		10	2	2	1	14	6														
Neurasthenia		5								2			2	4																		
Multiple neuritis													2	2				1														
Tetanus (idiopathic)									1	1	2	1																				
Cerebral tumor	1								1				2	1	2		1															
Hæmatomyelitis									1																							
Sclerosis of cord														1																		
Glyoma cerebri														1	1																	
Vertigo															1																	
Chorea															1																	
Total nervous system	39	52	14	31					98	54	86	61	105	74	52	49	70	36														
Order 2.—*Circulatory organs.*																																
Valvular disease of the heart	12	26	13	30					18	16	9	14	54	31	55	52	32	27														
Hydropericardium			1												2	2																
Pericarditis		1	1								1	1		1	4	4	1	1														
Endocarditis									1				3		3			2														
Fatty degeneration of heart	2	4	1	2					1				1	4	3	3	3	3														
Dilatation of heart	1			1						1			2			2	3														
Hypertrophy of heart		2		2								1		3		4	1														
Cardiac thrombosis														2																		
Myocarditis		1											1	4	1	1		1														
Paralysis of heart				1												1																
Angina pectoris	4	2									1	1	7	1		1	3	1														
Atheromatous degeneration	1												3																			
Heart disease, undefined											2																					
Rupture of artery (coronary)		1									1		2	1																		
Aneurism of aorta			1										1		5		2															
Aortic stenosis			1	1						1			1	1	2	1																
Cardiac asthma		1									1			1	1		1	1														
Total circulatory organs	20	38	18	37					20	18	15	17	75	49	76	71	46	36														
Order 3.—*Respiratory organs.*																																
Pneumonia	19	28	5	10					59	67	75	77	61	38	51	37	31	13														
Bronchitis	2	8							17	16	24	28	7	9	3	2	2	6														
Congestion of lungs	2	6	1						16	5	13	23	1	4	6	5	3	4														
Œdema of lungs				1					1		1	1				2	1															
Abscess of lungs			1										1		2		1															
Gangrene of lungs				1									2		1	1	2															
Pleurisy	3		1							1	3	1	4	1	2	1	1															

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	AGE OF DECEDENT.																									
	Under 1 year.				1 to 2 years.				2 to 3 years.				3 to 4 years.				4 to 5 years.				Total under 5 years.				Total.	Per cent of each cause to total mortality under 5 years of age.
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS II.—CONSTITUTIONAL DISEASES.																										
Order 2.—*Tubercular.*																										
Phthisis pulmonalis	7	5	5	3	....	4	7	6	....	....	8	2	1	....	2	2	....	....	2	3	8	9	24	16	57	3.09
Tuberculosis	2	1	3	8	....	....	2	1	....	1	....	4	....	....	....	....	....	....	....	....	2	2	5	13	22	1.18
Marasmus	32	40	18	19	....	....	5	4	....	....	1	....	....	....	1	1	....	....	....	....	32	40	25	24	121	6.55
Scrofula	....	....	....	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	....	1	....	....	2	1	3	.16
Tubercular enteritis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
meningitis	3	1	1	1	2	1	..	....	....	1	1	....	1	....	1	....	....	....	1	1	6	3	4	2	15	.81
laryngitis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Tubes mesenterica	1	....	1	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	1	....	2	....	3	.16
Hydrocephalus	2	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	2	....	....	2	4	.21
Rickets	1	....	....	1	....	....	1	1	....	....	....	1	....	....	....	....	....	....	....	....	1	....	1	3	5	.27
Hip-joint disease	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	1	.05
Osteitis, tubercular, multiple	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Peritonitis, tubercular	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
adenitis	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	.05
Pott's disease	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total tubercular	49	47	28	33	2	5	16	12	....	2	11	7	2	....	5	4	....	....	3	6	53	54	63	62	232	12.53
Total constitutional diseases	49	47	29	33	2	5	16	12	....	2	11	8	2	....	5	4	1	....	3	6	54	54	64	63	235	12.69
CLASS III.—LOCAL DISEASES.																										
Order 1.—*Nervous system.*																										
Meningitis—cerebral	7	5	4	3	4	2	2	1	....	1	....	....	....	2	1	....	....	....	1	....	11	10	8	4	33	1.79
cerebro-spinal	4	1	....	....	1	....	1	2	....	....	....	....	....	....	....	....	....	....	....	....	5	1	1	2	9	.49
spinal	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	.05
Apoplexy	1	1	....	1	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	2	1	....	1	4	.21
Epilepsy	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1	.05
Insanity (organic brain disease)	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Softening of brain	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Congestion of brain	8	2	5	5	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	8	3	5	5	21	1.18
Inflammation of brain	....	....	....	1	....	1	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	1	....	3	4	.21
Convulsions	23	11	39	27	1	1	....	1	....	....	....	1	....	1	....	1	....	....	....	....	24	13	39	30	106	5.74
Trismus nascentium	4	4	6	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4	4	6	2	16	.87
Abscess of brain	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	.05

Œdema of brain	1		1																1		1		2	.11
Insolation		1	1		1		1												1	1	2		4	.21
Neurasthenia																								
Multiple neuritis																								
Tetanus (idiopathic)	1	1	1	1															1	1	1	1	4	.21
Cerebral tumor																								
Hæmatomyelitis																								
Sclerosis of cord																								
Glyoma cerebri																								
Vertigo																								
Chorea																								
Total nervous system	50	26	57	40	8	4	5	5	1	1		2		4	1	1			1		59	35	64	48	206	11.12
Order 2.—*Circulatory organs.*																										
Valvular disease of the heart	1	1	1	1					1							1			3	1	1	1	6	.32
Hydropericardium																								
Pericarditis																								
Endocarditis																								
Fatty degeneration of heart																								
Dilatation of heart																								
Hypertrophy of heart																								
Cardiac thrombosis																								
Myocarditis																								
Paralysis of heart																								
Angina pectoris																								
Atheromatous degeneration			1																		1		1	.05
Heart disease, undefined																								
Rupture of artery (coronary)																								
Aneurism of aorta																								
Aortic stenosis																								
Cardiac asthma																								
Total circulatory organs	1	1	2	1					1							1			3	1	2	1	7	.37
Order 3.—*Respiratory organs.*																										
Pneumonia	30	4	32	10	9	28	23	33	1	2	6	10	1	1	3	7	1	3	2	4	42	38	66	64	210	11.34
Bronchitis	11	6	13	21	2	3	3	4	1		4					1	1				15	9	20	26	70	3.78
Congestion of lungs	14	4	8	16	1		1	5							1				2		15	4	12	21	52	2.81
Œdema of lungs	1		1					1													1		1	1	3	.16
Abscess of lungs																										
Gangrene of lungs																										
Pleurisy											1									1			1	1	2	.11

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	AGE OF DECEDENT.																											
	5 to 10 years.				10 to 20 years.				20 to 30 years.				30 to 40 years.				40 to 50 years.				50 to 60 years.				60 to 70 years.			
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS II.—CONSTITUTIONAL DISEASES.																												
Order 2.—*Tubercular.*																												
Phthisis pulmonalis	....	....	5	4	7	19	35	54	49	41	50	60	56	31	31	37	30	25	21	18	28	12	22	7	21	11	12	3
Tuberculosis	....	....	2	3	....	2	5	5	....	7	4	6	2	1	2	4	....	....	2	2	5	....	3	1	1	....	....	2
Marasmus	1	....	....	....	....	....	1	....	1	....	2	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....
Scrofula	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Tubercular enteritis	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1	....	....
meningitis	2	5	1	1	1	....	....	1	....	....	1	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....
laryngitis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	....	....	....	....	....	....
Tubes mesenterica	....	....	....	....	....	....	....	1	2	1	....	2	1	1	....	....	....	1	....	....	1	....	....	....	....	....	....	....
Hydrocephalus	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Rickets	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Hip-joint disease	....	....	....	....	....	....	....	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Osteitis, tubercular, multiple	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Peritonitis, tubercular	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....
adenitis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Pott's disease	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total tubercular	4	5	8	8	9	21	41	62	52	50	58	68	59	36	34	40	30	26	24	20	36	12	25	8	23	12	12	5
Total constitutional diseases	4	5	9	8	11	22	41	64	53	52	58	70	60	48	35	47	38	38	31	28	50	29	28	21	33	28	15	14
CLASS III.—LOCAL DISEASES.																												
Order 1.—*Nervous system.*																												
Meningitis—cerebral	....	....	....	1	1	1	1	....	2	1	1	....	3	....	....	....	1	4	....	....	....	....	....	....	1	....	....	....
cerebro-spinal	....	....	1	1	....	....	....	....	....	1	....	....	....	....	....	....	....	....	1	....	....	1	....	....	1	....	....	....
spinal	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Apoplexy	....	....	....	....	....	....	....	....	3	2	1	1	2	1	1	5	6	10	7	6	10	9	5	8	28	9	8	11
Epilepsy	....	....	....	....	....	1	1	1	....	....	1	2	1	1	2	....	3	....	1	1	1	2	1	....	5	....	....	....
Insanity (organic brain disease)	....	....	....	....	....	....	....	....	1	1	1	....	2	1	1	....	4	3	2	2	12	3	2	1	11	....	....	1
Softening of brain	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	1	....	....	....	....	1	....	....	1	1	1	....
Congestion of brain	....	....	2	....	....	....	....	....	1	1	....	1	3	....	....	....	....	3	1	....	....	....	1	1	1	....	....	....
Inflammation of brain	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Convulsions	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Trismus nascentium	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Abscess of brain	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	1	....	....	....	....	....	....	....

Œdema of brain																												
Insolation										3			3	1	1		8	1			7		1	1	5	2		
Neurasthenia																		2							1	4		
Multiple neuritis								1										2			1					1		
Tetanus (idiopathic)							1																					
Cerebral tumor					1		1										1		1						1	1		
Hæmatomyelitis																									1			
Sclerosis of cord																						1						
Glyoma cerebri										1					1													
Vertigo																			1									
Chorea																										1		
Total nervous system	2		3	3	2	2	4	1	8	10	4	4	16	7	8	7	26	29	14	11	46	22	11	13	65	21	16	17
Order 2.—*Circulatory organs.*																												
Valvular disease of the heart	1	1	1		2	2	4	3	2	5	2	5	5	6	7	7	16	6	13	15	21	13	16	15	36	22	14	10
Hydropericardium																			1					1			1	
Pericarditis							2	1				2				1			1				1	1	1	1		1
Endocarditis							1						1		1		1				1	1			1		1	
Fatty degeneration of heart																		1	1		1	1	1	2	1	2	1	1
Dilatation of heart									1				1	1						1				1	3			
Hypertrophy of heart				1												1		1							1			1
Cardiac thrombosis														1												1		
Myocarditis														1					1		1	1			2		1	
Paralysis of heart																				1								
Angina pectoris					1					1		1		1	1	3					2				2	1		
Atheromatous degeneration																									1			
Heart disease, undefined			1																									
Rupture of artery (coronary)																	1	1	1						1			
Aneurism of aorta															1		1		2						2		2	
Aortic stenosis						1													1		1	1					1	1
Cardiac asthma			1																		1	1						
Total circulatory organs	1	1	3	1	3	3	7	4	3	5	3	7	8	9	10	10	22	9	21	17	28	18	18	20	49	29	20	15
Order 3.—*Respiratory organs.*																												
Pneumonia	2	4	5	7	2	2	3	4	15	8	15	9	14	4	9	9	19	14	6	8	17	17	12	10	18	13	4	2
Bronchitis		1		1				2						2		1		2			5	3	2		4	5		
Congestion of lungs								1	1		1	1	1		1	2	1		2	1		2	2		2	4		1
Œdema of lungs												1				1					1							
Abscess of lungs															1		1										1	
Gangrene of lungs												1	1								1		1		1			
Pleurisy							2											1			1		1	1	2			

TABTE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	AGE OF DECENDENT.																SOCIAL RELATIONS.							
	70 to 80 years.				80 to 90 years.				90 to 100 years.				Unknown age.				Married.				Single.			
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M	F.	M.	F.	M.	F.	M.	F.	M.	F.
Class II.—CONSTITUTIONAL DISEASES.																								
Order 2.—*Tubercular.*																								
Phthisis pulmonalis	8	6	5	7	1	3	....	....	....	....	....	....	....	....	....	....	78	55	69	45	112	78	120	139
Tuberculosis	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4	2	5	3	4	9	17	29
Marasmus	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	34	40	27	24
Scrofula	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	2	1
Tubercular enteritis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....
meningitis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	9	8	7	4
laryngitis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....
Tubes mesenterica	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	....	....	2	2	3	2	1
Hydrocephalus	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	....	2
Rickets	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1	3
Hip-joint disease	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	2
Osteitis, tubercular, multiple	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....
Peritonitis, tubercular	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....
adenitis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....
Pott's disease	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....
Total tubercular	10	7	5	7	1	3	....	....	....	....	....	....	....	....	....	....	86	60	76	50	168	134	177	205
Total constitutional diseases	14	19	5	12	1	5	1	....	....	....	....	1	....	....	....	....	119	99	89	70	185	145	178	215
Class III.—LOCAL DISEASES.																								
Order 1.—*Nervous system.*																								
Meningitis—cerebral	1	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	3	3	1	....	16	14	9	5
cerebro-spinal	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	1	....	5	1	2	3
spinal	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....
Apoplexy	22	21	8	4	3	3	....	1	....	....	....	1	....	....	....	....	51	16	22	11	13	11	2	5
Epilepsy	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	1	4	....	6	2	3	4
Insanity (organic brain disease)	6	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	15	5	4	1	16	4	1	1
Softening of brain	1	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	1	....	3	....	2	....	....	1
Congestion of brain	....	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	2	3	1	1	10	4	7	3
Inflammation of brain	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....
Convulsions	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	26	13	39	30
Trismus nascentium	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4	4	6	....
Abscess of brain	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	1	....

Hemiplegia		1														1	1	2	1					
Paraplegia							1									1	1	1	1					
Cerebral embolism	2	2														4	1							
Locomotor ataxia	1	1														3	2			3				
Myelitis																	1		1					1
Cerebral thrombus		1														3					1			
Œdema of brain		1			1												1			1		1		
Insolation	5	1														16	4	1		9	5	3		
Neurasthenia	1															2	1							
Multiple neuritis																1	3			1				
Tetanus (idiopathic)																				1	1	2	1	
Cerebral tumor	1															2	1	1		1		1		
Hæmatomyelitis																1								
Sclerosis of cord																					1			
Glyoma cerebri																	1	1						
Vertigo																		1						
Chorea																						1		
Total nervous system	43	34	12	4	6	5	2	1				1				116	48	46	16	118	64	78	63	
Order 2.—*Circulatory organs.*																								
Valvular disease of the heart	15	15	5	6	3	3	1	4								56	29	41	22	36	19	10	14	
Hydropericardium				1														1	2					
Pericarditis		1														1	1	1	1			3	4	
Endocarditis		1														4		1			2	2		
Fatty degeneration of heart	3	3														3	2	2	1		1			
Dilatation of heart																2			1	2	1			
Hypertrophy of heart		2		1				1									1		1	1			2	
Cardiac thrombosis																	2							
Myocarditis		1															4	1	1	1				
Paralysis of heart																								
Angina pectoris	1								1							5		1		1			2	
Atheromatous degeneration	2															2								
Heart disease, undefined																						2		
Rupture of artery (coronary)																2		1						
Aneurism of aorta																2		3		1		1		
Aortic stenosis																1					2	1		
Cardiac asthma			1			1										1	1	1				1		
Total circulatory organs	21	23	6	8	3	4	1	5		1						79	40	53	29	42	25	20	22	
Order 3.—*Respiratory organs.*																								
Pneumonia	18	9	4	1	4	9	3				3					61	31	30	17	71	59	91	87	
Bronchitis	2	4	1			5										9	9	3	1	15	14	24	29	
Congestion of lungs		2	1	1												1	2	5	2	17	4	13	26	
Œdema of lungs																1				1		1	2	
Abscess of lungs	1															1		1		1				
Gangrene of lungs	1															2		1		2				
Pleurisy	2	1					1									2			1		2	4	1	

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	SOCIAL RELATIONS.								NATIVITY.													
	Widow or widower.				Unknown.				District of Columbia.				Other parts of United States.				Foreign.				Unknown.			
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS II.—CONSTITUTIONAL DISEASES.																								
Order 2.—*Tubercular.*																								
Phthisis pulmonalis	18	29	16	22	....	....	....	....	79	65	87	134	91	74	118	72	38	18	....	....	....	....	....	....
Tuberculosis	3	2	1	3	....	....	....	....	6	6	13	20	3	5	10	15	2	2	....	....	....	....	....	....
Marasmus	1	....	....	....	....	....	....	....	33	40	29	24	2	....	....	....	....	....	....	....	....	....	....	....
Scrofula	....	....	....	....	....	....	....	....	....	....	2	1	....	1	....	....	....	....	....	....	....	....	....	....
Tubercular enteritis	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....
meningitis	....	....	....	....	....	....	....	....	8	8	7	4	1	....	....	....	....	1	....	....	....	....	....	....
laryngitis	....	....	....	....	....	....	....	....	....	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....
Tubes mesenterica	....	....	....	....	....	....	....	....	3	3	2	2	2	....	....	1	....	....	....	....	....	....	....	....
Hydrocephalus	....	....	....	....	....	....	....	....	2	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....
Rickets	....	....	....	....	....	....	....	....	1	....	1	3	....	....	....	....	....	....	....	....	....	....	....	....
Hip-joint disease	....	....	....	....	....	....	....	....	....	....	1	2	....	....	....	....	....	....	....	....	....	....	....	....
Ostelitis, tubercular, multiple	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Peritonitis, tubercular	1	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1	....	....	....	....	....	....	....
adenitis	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Pott's disease	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....
Total tubercular	23	32	17	25	....	....	....	....	134	123	142	192	102	81	128	88	41	22	....	....	....	....	....	....
Total constitutional diseases	28	56	20	43	....	....	....	....	142	138	146	197	129	116	141	131	61	46	....	....	....	....	....	....
CLASS III.—LOCAL DISEASES.																								
Order 1.—*Nervous system.*																								
Meningitis—cerebral	1	....	1	....	....	....	....	....	11	13	9	5	6	2	2	....	3	2	....	....	....	....	....	....
cerebro-spinal	....	1	....	....	....	....	....	....	5	1	3	3	1	2	....	....	....	....	....	....	....	....	....	....
spinal	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Apoplexy	18	29	5	22	....	....	....	....	26	11	4	9	41	32	25	29	15	13	....	....	....	....	....	....
Epilepsy	3	1	....	....	....	....	....	....	....	....	3	2	8	2	4	2	3	2	....	....	....	....	....	....
Insanity (organic brain disease)	5	1	1	2	....	....	....	....	1	1	6	1	16	6	....	3	19	3	....	....	....	....	....	....
Softening of brain	1	2	....	....	....	....	....	....	....	....	3	....	1	1	....	1	3	1	....	....	....	....	....	....
Congestion of brain	1	2	1	1	....	....	....	....	11	3	7	5	1	4	2	2	1	2	....	....	....	....	....	....
Inflammation of brain	....	....	....	....	....	....	....	....	....	1	....	3	....	....	....	....	....	....	....	....	....	....	....	....
Convulsions	....	....	....	....	....	....	....	....	26	13	39	20	....	....	....	....	....	....	....	....	....	....	....	....
Trismus nascentium	....	....	....	....	....	....	....	....	4	4	2	2	....	....	....	....	....	....	....	....	....	....	....	....
Abscess of brain	....	....	....	....	....	....	....	....	1	....	1	....	....	....	....	....	1	....	....	....	....	....	....	....

Hemiplegia		1	1	2					1					1	3	5		1												
Paraplegia				1					1	1					1	2														
Cerebral embolism	1	3											2	4			3													
Locomotor ataxia		1		1									4	2		1	2	1												
Myelitis		1												2		2														
Cerebral thrombus		1	1						1				2		1			2												
Œdema of brain	1								1		1		1					1												
Insolation	4			1					5	1	2		10	2	2	1	14	6												
Neurasthenia		5								2			2	4																
Multiple neuritis													2	2				1												
Tetanus (idiopathic)									1	1	2	1																		
Cerebral tumor	1								1				2	1	2		1													
Hæmatomyelitis									1																					
Sclerosis of cord														1																
Glyoma cerebri														1	1															
Vertigo															1															
Chorea															1															
Total nervous system	39	52	14	31					98	54	86	61	105	74	52	49	70	36												
Order 2.—*Circulatory organs.*																														
Valvular disease of the heart	12	26	13	30					18	16	9	14	54	31	55	52	32	27												
Hydropericardium			1												2	2														
Pericardi is		1	1								1	1		1	4	4	1	1												
Endocarditis									1				3		3			2												
Fatty degeneration of heart	2	4	1	2					1				1	4	3	3	3	3												
Dilatation of heart	1			1						1			2			2	3												
Hypertrophy of heart		2		2								1		3		4	1												
Cardiac thrombosis														2																
Myocarditis		1											1	4	1	1		1												
Paralysis of heart				1												1														
Angina pectoris	4	2									1	1	7	1		1	3	1												
Atheromatous degeneration	1												3																	
Heart disease, undefined											2																			
Rupture of artery (coronary)		1									1		2	1																
Aneurism of aorta			1										1		5		2													
Aortic stenosis			1	1						1			1	1	2	1														
Cardiac asthma		1									1			1	1		1	1												
Total circulatory organs	20	38	18	37					20	18	15	17	75	49	76	71	46	36												
Order 3.—*Respiratory organs.*																														
Pneumonia	19	28	5	10					59	67	75	77	61	38	51	37	31	13												
Bronchitis	2	8							17	16	24	28	7	9	3	2	2	6												
Congestion of lungs	2	6	1						16	5	13	23	1	4	6	5	3	4												
Œdema of lungs				1					1		1	1				2	1													
Abscess of lungs			1										1		2		1													
Gangrene of lungs				1									2		1	1	2													
Pleurisy	3		1							1	3	1	4	1	2	1	1													

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death	Total deaths from each cause.	Per cent of each cause to total mortality.	DEATH RATE. Deaths per 1,000 inhabitants.		RECAPITULATION. Total by color and sex.				Total by color.		Total by sex.		1896. July.				August.			
					W.		C.						W.		C.		W.		C.	
			W.	C.	M.	F.	M.	F.	W.	C.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS III.—LOCAL DISEASES.																				
Order 3.—*Respiratory organs.*																				
Asthma	22	.38	.04	.16	4	4	4	10	8	14	8	14	.....	.....	1	.....	.....	.....	.....	1
Pulmonary hemorrhage	5	.09	.....	.04	.....	1	2	2	1	4	2	3	.....	1	.....	.....	.....	.....	1	.....
emphysema	2	.03	.....	.01	.....	1	.....	1	1	1	.....	2	.....	.....	.....	1	.....	.....	.....	.....
Laryngismus stridulus	3	.05	.02	.....	2	1	.....	.....	3	.....	2	1	.....	.....	.....	.....	.....	.....	.....	.....
Total respiratory organs	764	13.31	2.05	4.29	216	170	187	191	386	378	403	361	2	5	8	13	5	2	8	4
Order 4.—*Digestive organs.*																				
Dentition	29	.52	.04	.24	5	3	2	19	8	21	7	22	3	2	1	4	1	1	.....	4
Gastritis	34	.59	.12	.14	10	12	7	5	22	12	17	17	1	1	1	1	3	1	.....	.....
Enteritis	65	1.18	.15	.44	15	12	15	23	27	38	30	35	7	1	3	7	3	1	3	1
Gastro-enteritis	60	1.06	.12	.44	10	12	16	22	22	38	26	34	2	3	5	10	2	2	6	2
Gastric catarrh	4	.07	.02	.01	2	1	1	.....	3	1	3	1	.....	.....	.....	.....	.....	1	.....	.....
Enteric catarrh	8	.14	.02	.04	2	2	1	3	4	4	3	5	.....	.....	.....	.....	.....	1	.....	.....
Gastro-intestinal catarrh	22	.39	.07	.12	4	8	2	8	12	10	6	16	1	4	1	1	.....	1	1	4
Gastric ulcer	7	.12	.03	.02	1	4	2	.....	5	2	3	4	.....	.....	.....	.....	.....	.....	.....	.....
Indigestion	11	.20	.04	.03	4	4	1	2	8	3	5	6	1	3	.....	.....	1	.....	.....	.....
Colitis	9	.15	.03	.04	5	.....	1	3	5	4	6	3	3	.....	.....	1	.....	.....	.....	1
Appendicitis	16	.29	.08	.03	7	6	3	.....	13	3	10	6	1	1	.....	.....	.....	1	.....	.....
Hepatitis	9	.15	.03	.03	3	3	1	2	6	3	4	5	.....	.....	1	.....	.....	.....	.....	.....
Cirrhosis of liver	24	.43	.09	.11	12	3	7	2	15	9	19	5	2	.....	1	1	2	1	.....	.....
Abscess of liver	14	.24	.04	.06	4	4	3	3	8	6	7	7	1	1	.....	.....	1	.....	1	.....
Hypertrophy of liver	5	.09	.02	.01	2	2	1	.....	4	1	3	2	.....	.....	.....	.....	.....	.....	.....	.....
Atrophy of liver	2	.03	.01	.....	1	1	.....	.....	2	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....
Intussusception	2	.03	.....	.01	.....	1	1	.....	1	1	1	1	.....	.....	.....	.....	.....	.....	.....	.....
Hernia (intestinal)	11	.20	.03	.07	3	2	5	1	5	6	8	3	.....	.....	.....	.....	.....	.....	.....	.....
Intestinal stasis	1	.01	.....	.....	.....	1	.....	.....	1	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....
Intestinal obstruction	22	.39	.09	.06	9	8	3	2	17	5	12	10	.....	.....	2	.....	.....	2	.....	.....
gangrene	2	.03	.....	.02	.....	.....	1	1	.....	2	1	1	.....	.....	1	.....	.....	.....	.....	1
Peritonitis	23	.41	.08	.11	6	8	2	7	14	9	8	15	.....	.....	.....	3	.....	.....	.....	.....
Enteric ulcer	2	.03	.....	.01	1	.....	.....	1	1	1	1	1	.....	.....	.....	.....	1	.....	.....	.....
Diverticulum of œsophagus	2	.03	.01	.....	1	1	.....	.....	2	.....	1	1	.....	.....	.....	.....	1	.....	.....	.....
Œdema of glottis	2	.03	.01	.....	2	.....	.....	.....	2	.....	2	.....	.....	.....	.....	.....	1	.....	.....	.....
Waxy liver	3	.05	.01	.01	2	.....	1	.....	2	1	3	.....	.....	.....	.....	.....	1	.....	.....	.....

Yellow atrophy of liver	1	.01				1			1			1							
Abscess, retroperitoneal	2	.03	.01		2	1			2		2	1						1		
Jaundice	2	.02		.01	1			1	1	1		1								
Obstruction of hepatic duct	3	.05	.02		2	1			3		2	1								
Hemorrhage, enteric	2	.03		.01	1			1	1	1		1								
Laryngeal paralysis	2	.03	.01			2			2			2								
Hæmophtisis	1	.02		.01				1		1		1								
Gastric congestion	2	.03	.01		1	1			2		1	1								
Strangulated omentum	1	.01				1			1			1								
Volvulus of the colon	1	.02			1				1		1									
Splenic tumor	1	.02				1			1			1								
Total diseases of digestive organs	408	7.11	1.19	2.08	119	106	76	107	225	183	195	213	22	17	16	28	17	14	11	13
Order 5.—*Urinary organs.*																				
Bright's disease of the kidneys	52	.92	.17	.22	23	10	9	10	33	19	32	20	4	1	2	3	2		1	
Nephritis	185	3.24	.61	.81	70	44	42	29	114	71	112	73	5	3	5	4	8	5		3
Albuminuria	2	.03	.01		1	1			2		1	1		1						
Cystitis	11	.20	.04	.03	8		3		8	3	11		1				3			
Diabetes	12	.22	.04	.06	3	4	4	1	7	5	7	5						1	1	
Uræmia	14	.24	.04	.07	5	3	5	1	8	6	10	4					2	1	1	
Enlarged prostate	10	.17	.05	.01	9		1		9	1	10		2				2		1	
Perinephritic abscess	3	.05	.02			3			3			3		1						
Cirrhosis of kidney	3	.05	.02		3				3		3						1			
Melasma suprarenal	1	.02			1				1		1						1			
Renal hemorrhage	2	.03	.01		2				2		2									
calculi	4	.06	.02		2	2			4		2	2								
congestion	2	.03	.01			2			2			2								
Stricture of urethra (operation)	2	.03		.01	1		1		1	1	2									
Rupture of bladder	2	.03	.01		2				2		2									
Cystic degeneration of kidney	1	.02		.01				1		1		1								
Total urinary organs	306	5.34	1.05	1.22	130	69	65	42	199	107	195	111	12	6	7	7	19	7	4	3
Order 6.—*Generative organs.*																				
Fibroids of the uterus	11	.19	.02	.08		4		7	4	7		11		1						1
Ovarian tumors	3	.05	.01	.01		2		1	2	1		3								
Pyosalpinx	8	.14	.02	.06		3		5	3	5		8		1						1
Ovarian cyst	3	.05	.01	.01		2		1	2	1		3								
Salpingo-oöphoritis	2	.03	.01			2			2			2								
Total generative organs	27	.46	.06	.16		13		14	13	14		27		2						2
Order 7.—*Osseous and locomotory.*																				
Pelvic abscess	9	.15	.03	.06		4		5	4	5		9		2						
Gangrene of leg	1	.02		.01				1		1		1				1				
Psoas abscess	2	.03		.02			2			2	2								1	
Gangrene of foot	5	.09		.05	1			4	1	4	1	4								3
Osteomyelitis of tibia	1	.02		.01			1			1	1	1								

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	1896.																						1897.			
	September.				Total first quarter.				October.				November.				December.				Total second quarter.				January.			
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS III.—LOCAL DISEASES.																										
Order 3.—*Respiratory organs.*																										
Asthma	....	....	1	2	....	....	2	3	....	....	....	1	1	....	....	1	1	1	....	1	2	1	....	3	....	....	1	....
Pulmonary hemorrhage	....	....	....	....	....	1	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....
emphysema	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Laryngismus stridulus	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....
Total respiratory organs	8	4	8	8	15	11	24	25	11	6	16	9	17	13	12	14	19	19	17	15	47	38	45	38	34	31	24	27
Order 4.—*Digestive organs.*																										
Dentition	....	....	....	3	4	3	1	11	....	....	....	1	1	....	....	1	....	....	....	1	1	....	....	3	....	....	....	1
Gastritis	1	1	....	1	5	3	1	2	....	....	....	....	1	2	1	....	....	....	....	....	1	2	1	....	1	1	3	....
Enteritis	2	....	3	1	12	2	9	9	....	2	....	2	....	....	....	1	1	1	1	1	1	3	1	4	....	....	....	....
Gastro-enteritis	1	1	....	....	5	6	11	12	....	1	....	3	....	....	1	1	1	....	1	....	1	1	2	4	1	....	....	....
Gastric catarrh	....	....	....	....	....	1	....	....	....	....	1	....	1	....	....	....	....	....	....	....	1	....	1	....	....	....	....	....
Enteric catarrh	....	1	....	1	....	2	....	1	1	....	1	....	....	....	....	....	....	....	....	....	1	....	1	....	....	....	....	....
Gastro-intestinal catarrh	....	....	....	....	1	5	2	5	2	....	....	....	....	....	....	....	....	....	....	....	2	....	....	....	....	....	....	1
Gastric ulcer	....	....	....	....	....	....	....	....	....	....	1	....	1	1	....	....	....	....	....	....	1	1	1	....	....	....	....	....
Indigestion	1	1	....	....	3	4	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	....
Colitis	1	....	....	....	4	....	....	2	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....
Appendicitis	....	....	....	....	1	2	....	....	....	1	1	....	....	....	....	....	....	....	1	....	....	1	2	....	1	....	1	....
Hepatitis	....	1	....	....	....	1	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....
Cirrhosis of liver	....	....	1	....	4	1	2	1	4	....	1	....	1	1	1	....	....	1	1	1	5	2	3	1	....	....	....	....
Abscess of liver	....	....	....	....	2	1	1	....	....	....	1	1	....	....	....	....	2	....	....	....	2	....	1	2	....	....	....	....
Hypertrophy of liver	1	....	....	....	1	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....
Atrophy of liver	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....
Intussusception	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....
Hernia (intestinal)	....	....	2	1	....	....	2	1	....	1	....	....	2	....	....	....	....	....	1	....	2	1	1	....	....	....	....	....
Intestinal stasis	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Intestinal obstruction	2	1	....	....	2	3	2	....	1	....	....	....	....	....	....	....	1	1	....	....	2	1	....	....	1	1	....	....
gangrene	....	....	....	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Perotinitis	....	....	....	1	1	....	....	4	2	....	1	....	....	1	....	....	....	2	....	....	2	3	1	1	2	1	....	1
Enteric ulcer	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	....

Yellow atrophy of liver						1																				
Abscess, retroperitoneal									1								1				2					
Jaundice												1											1			
Obstruction of hepatic duct													1								1					
Hemorrhage, enteric													1								1					
Laryngeal paralysis														1								1			1	
Hæmophtisis																1							1			
Gastric congestion																								1		
Strangulated omentum																										
Volvulus of the colon																										
Splenic tumor																										
Total diseases of digestive organs	9	6	6	8	48	37	33	49	11	6	8	9	9	8	4	7	6	5	5	3	26	19	17	19	7	4	4	3
Order 5.—*Urinary organs.*																												
Bright's disease of the kidneys	1				7	1	3	3	2	1		2				2	2	2			4	3		4	2	2	1	
Nephritis	6	1	6	4	19	9	11	11	7	3	2	2	2	3	3	1	3	5	4	1	12	11	9	4	8	8	1	2
Albuminuria						1																						
Cystitis					4				1								1		1		2		1					
Diabetes			1			1	2			1	1		1								1	1	1		1	1		
Uræmia		1			2	2	1		1		1										1		1			1	1	1
Enlarged prostate	1				5		1		1				2								3							
Perinephretic abscess						1				1				1								2						
Cirrhosis of kidney					1				1												1							
Mealsma suprarenal					1																							
Renal hemorrhage	1				1				1												1							
calculi										1			1	1							1	2						
congestion										1				1								2						
Stricture of urethra (operation)																			1				1					
Rupture of bladder																												
Cystic degeneration of kidney																												
Total urinary organs	9	2	7	4	40	15	18	14	14	8	4	4	6	6	3	3	6	7	6	1	26	21	13	8	11	12	3	3
Order 6.—*Generative organs.*																												
Fibroids of the uterus				1		1		2								1								1				1
Ovarian tumors																		1			1							
Pyosalpinx						1		1		1		1									1			1		1		1
Ovarian cyst										1				1		1					2			1				
Salpingo-oöphoritis														1							1							
Total generative organs				1		2		3		2		1		2		2		1			5			3		1		2
Order 7.—*Osseous and locomotory.*																												
Pelvic abscess						2				1		2									1			2				1
Gangrene of leg								1																				
Psoas abscess							1				1												1					
Gangrene of foot								3	1											1								1
Osteomyelitis of tibia																			1				1					

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	1897.																									
	February.				March.				Total third quarter.				April.				May.				June.				Total fourth quarter.			
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M	F.
CLASS III.—LOCAL DISEASES.																										
Order 3.—*Respiratory organs.*																										
Asthma	1	....	....	1	1	1	....	2	2	1	1	3	....	2	....	1	....	....	....	....	....	....	1	....	....	2	1	1
Pulmonary hemorrhage	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1
emphysema	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Laryngismus stridulus	1	....	....	....	....	....	....	....	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1	....	....
Total respiratory organs	43	33	24	35	33	24	29	29	110	88	77	91	27	19	17	21	8	8	14	11	9	6	10	5	44	33	41	37
Order 4.—*Digestive organs.*																										
Dentition	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	1	....	....	....	....	4	....	....	1	4
Gastritis	1	2	1	1	2	1	....	1	4	4	4	2	....	1	1	....	....	....	....	....	....	2	....	1	....	3	1	1
Enteritis	....	....	....	....	1	1	1	2	1	1	1	2	....	1	....	1	1	1	2	3	....	4	2	4	1	6	4	8
Gastro-enteritis	....	....	....	....	....	2	....	1	1	2	....	1	....	1	....	....	....	....	1	1	3	2	2	4	3	3	3	5
Gastric catarrh	....	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Enteric catarrh	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1	....	....	....	1	....	....	....	....	1	....	....	2
Gastro-intestinal catarrh	....	....	....	....	....	1	....	....	....	1	....	1	....	....	....	1	1	....	....	1	....	2	....	....	1	2	....	2
Gastric ulcer	....	2	....	....	....	....	....	....	....	2	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	1	1	....
Indigestion	....	....	1	....	....	....	....	....	....	....	1	....	1	....	....	....	....	....	....	....	....	....	....	1	1	....	....	1
Colitis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1	1	....	....	1
Appendicitis	....	1	....	....	....	1	....	....	1	2	1	....	....	....	....	....	....	1	....	....	4	1	....	....	5	1	....	....
Hepatitis	2	....	....	....	1	1	....	....	3	1	....	....	....	....	....	1	....	....	1	....	....	....	....	....	....	....	....	2
Cirrhosis of liver	2	....	1	....	1	....	....	....	3	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....
Abscess of liver	....	....	....	....	....	1	1	....	....	1	1	....	....	....	....	....	....	....	....	....	....	2	....	1	....	2	....	1
Hypertrophy of liver	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	....	....	....	....	....	1	....	....	....	1	1	1	....
Atrophy of liver	....	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Intussusception	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1	....	....
Hernia (intestinal)	....	1	....	....	1	....	....	....	1	1	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	2	....
Intestinal stasis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Intestinal obstruction	1	....	....	....	....	....	....	....	2	1	....	....	1	1	1	2	2	2	....	....	....	....	....	....	3	3	1	2
gangrene	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Peritonitis	....	1	....	....	....	1	....	....	2	3	....	1	1	2	....	1	1	....	1	....	....	....	....	....	2	2	1	1
Enteric ulcer	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....
Diverticulum of œsophagus	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....

Abscess, retroperitoneal																											
Jaundice	1								1																		
Obstruction of hepatic duct						1				1											1				1		
Hemorrhage, enteric																1											1
Laryngeal paralysis										1																	
Hæmophtisis																											
Gastric congestion									1													1				1	
Strangulated omentum		1								1																	
Volvulus of the colon													1												1		
Splenic tumor																	1									1	
Total diseases of digestive organs	7	8	3	1	8	10	2	4	22	22	9	8	5	9	6	8	7	5	6	7	11	14	5	16	23	28	17	31
Order 5.—*Urinary organs.*																											
Bright's disease of the kidneys	4	1	3		1	1			7	4	4		1			1	3	1	1		1	1	1	2	5	2	2	3
Nephritis	4	2	7	2	5	4	3	4	17	14	11	8	7	2	3	4	6	3	3		9	5	5	2	22	10	11	6
Albuminuria					1				1																			
Cystitis	1								1						2		1								1		2	
Diabetes			1	1					1	1	1	1	1									1			1	1		
Uræmia										1	1	1	2										2		2		2	
Enlarged prostate																					1				1			
Perinephretic abscess																												
Cirrhosis of kidney													1												1			
Melasma suprarenal																												
Renal hemorrhage																												
calculi					1				1																			
congestion																												
Stricture of urethra (operation)	1								1																			
Rupture of bladder																	1				1				2			
Cystic degeneration of kidney																				1								1
Total urinary organs	10	3	11	3	8	5	3	4	29	20	17	10	12	2	5	5	11	4	4	1	12	7	8	4	35	13	17	10
Order 6.—*Generative organs.*																												
Fibroids of the uterus								1				2				1		2		1		1				3		2
Ovarian tumors						1		1		1		1																
Pyosalpinx										1		1				1				1								2
Ovarian cyst																												
Salpingo-oöphoritis																						1				1		
Total generative organs						1		2		2		4				2		2		2		2				4		4
Order 7.—*Osseous and locomotory.*																												
Pelvic abscess												1				2		1								1		2
Gangrene of leg																												
Psoas abscess																												
Gangrene of foot												1																
Osteomyelitis of tibia																												

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	AGE OF DECEDENT.																								Total.	Per cent of each cause to total mortality under 5 years of age.
	Under 1 year.				1 to 2 years.				2 to 3 years.				3 to 4 years.				4 to 5 years.				Total under 5 years.					
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS III.—LOCAL DISEASES.																										
Order 3.—*Respiratory organs.*																										
Asthma				1																				1	1	.05
Pulmonary hemorrhage																										
emphysema																										
Laryngismus stridulus	1	1							1												2	1			3	.16
Total respiratory organs	57	15	54	48	12	31	27	43	3	2	11	10	1	1	4	8	2	3	4	5	75	52	100	114	341	18.41
Order 4.—*Digestive organs.*																										
Dentition	5	3	2	13				5				1									5	3	2	19	29	1.58
Gastritis	2		4	1		1				1						1					2	2	4	2	10	.54
Enteritis	10	7	15	20		2		1													10	9	15	21	55	2.98
Gastro-enteritis	6	3	13	16		3					1			1	1						6	7	15	16	44	2.38
Gastric catarrh																										
Enteric catarrh	1		1	1		1															1	1	1	1	4	.21
Gastro-intestinal catarrh	1	3	1	6			1														1	3	2	6	12	.65
Gastric ulcer																										
Indigestion	2	3	1	2		1															2	4	1	2	9	.49
Colitis	1			2				1	1												2			3	5	.27
Appendicitis																										
Hepatitis																										
Cirrhosis of liver																										
Abscess of liver																										
Hypertrophy of liver																										
Atrophy of liver																										
Intussusception																										
Hernia (intestinal)			1	1																			1	1	2	.11
Intestinal stasis																										
Intestinal obstruction	1	2																			1	2			3	.16
gangrene			1	1										1				1				2	1	1	4	.21
Peritonitis																										
Enteric ulcer																										
Diverticulum of œsophagus																										
Œdema of glottis		1															1				1				1	.06
Waxy liver																					1				1	.06

Jaundice				1																			1	1	.05
Obstruction of hepatic duct																									
Hemorrhage, enteric				1																			1	1	.05
Laryngeal paralysis																									
Hæmophtisis															1								1	1	.05
Gastric congestion																									
Strangulated omentum																									
Volvulus of the colon																									
Splenic tumor																									
Total diseases of digestive organs	30	21	39	65		8	1	7	1	1	1	1		3	1	2	1	1			32	34	42	75	183	9.88
Order 5.—*Urinary organs.*																									
Bright's disease of the kidneys																									
Nephritis	4		2					1	1										1		5		3	1	9	.48
Albuminuria																									
Cystitis																									
Diabetes																									
Urœmia	1		2																		1		2		3	.16
Enlarged prostate																									
Perinephretic abscess																									
Cirrhosis of kidney																									
Melasma suprarenal																									
Renal hemorrhage																									
calculi																									
congestion																									
Stricture of urethra (operation)																									
Rupture of bladder																									
Cystic degeneration of kidney																									
Total urinary organs	5		4					1	1										1		6		5	1	12	.64
Order 6.—*Generative organs.*																									
Fibroids of the uterus																									
Ovarian tumors																									
Pyosalpinx																									
Ovarian cyst																									
Salpingo-oöphoritis																									
Total generative organs																									
Order 7.—*Osseous and locomotory.*																									
Pelvic abscess																									
Gangrene of leg																									
Psoas abscess																									
Gangrene of foot																									
Osteomyelitis of tibia																									

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	1896.																								1897.			
	September.				Total first quarter.				October.				November.				December.				Total second quarter.				January.			
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS III.—LOCAL DISEASES.																												
Order 7.—*Osseous and locomotory.*																												
Necrosis of maxillary	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
ribs	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Kyphosis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total osseous and locomotory	....	....	....	....	....	2	1	4	1	1	1	2	....	....	....	....	....	....	1	....	1	1	2	2	....	....	....	3
Order 8.—*Integumentary.*																												
Sarcomata and tumors	....	....	1	....	1	1	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Epistaxis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total integumentary	....	....	1	....	1	1	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total local diseases	48	26	43	39	216	133	143	153	79	49	49	38	52	55	44	39	67	59	39	35	198	163	132	112	86	69	54	54
CLASS IV.—DEVELOPMENTAL.																												
Order 1.—*Children.*																												
Premature birth	3	4	3	4	13	12	7	7	1	6	5	3	4	5	3	1	1	2	2	....	6	13	10	4	4	4	4	2
Congenital debility	2	1	2	....	5	4	6	8	2	....	....	1	2	....	....	3	....	3	....	2	4	3	....	6	....	1	....	1
Protracted labor	....	....	1	....	3	....	1	....	....	....	....	1	....	....	1	....	....	1	....	....	....	1	1	1	....	....	....	....
Cyanosis	....	....	....	....	1	....	1	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	1	....	....	....
Umbilical sepsis	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
hemorrhage	....	....	1	....	....	....	2	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	....	....	....
Asphyxia	1	....	....	....	1	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....
Icterus neonatorum	1	....	....	....	1	....	....	1	....	....	....	....	1	....	1	....	....	....	....	....	1	....	1	....	....	....	....	....
Forceps delivery	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Ophthalmia neonatorum	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Intercranial hemorrhage	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Open foramen ovalé	....	1	....	....	....	1	1	1	1	1	1	....	....	....	....	....	....	....	1	....	1	1	2	....	....	....	....	....
Omphalitis	....	....	....	....	....	....	1	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	1	....	....	....	....
Congenital malformation (monstrosity)	....	1	1	....	....	1	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
	....	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....

Spina bifida																											
Total diseases of children	7	8	9	4	25	19	24	20	4	7	6	5	7	6	6	5	1	8	3	2	12	21	15	12	6	5	4	3
Order 2.—*Women.*																												
Puerperal convulsions		1				2		1		3				1								4						
peritonitis						2		2										1				1						
septicæmia						1		1		2						1						2		1		1		
fever														1								1						
Placenta previa						2														1				1				
Endometritis						1		1										1				1						
Abortion				1				3						1								1						
Childbirth										1												1						
Uterine hemorrhage										1												1						
Extrauterine pregnancy																		1				1						
Puerperal mania																												
Rupture of uterus																												
Abscess of uterus																												
Total diseases of women		1		1		8		8		7				3		1		3		1		13		2		1		
Order 3.—*Old age.*																												
Senility	2	7	1	4	11	25	7	16	8	6	5	6	5	11	4	2	8	6	1	2	21	23	10	10	3	12	4	2
Senile gangrene													1					2			1	2			1			
Total old age	2	7	1	4	11	25	7	16	8	6	5	6	6	11	4	2	8	8	1	2	22	25	10	10	4	12	4	2
Order 4.—*Nutrition.*																												
General debility						1								1				1				2						
Total nutrition						1								1				1				2						
Total developmental diseases	9	16	10	9	36	53	31	44	12	20	11	11	13	21	10	8	9	20	4	5	34	61	25	24	10	18	8	5
CLASS V.—VIOLENCE.																												
Order 1.—*Accidents and negligence.*																												
Drowning			1		4		6						1		1						1		1					1
Falls					3	1	2		1				2				2	2	2	1	5	2	2	1	3	1		
Railways, steam					3		1		1				1				1				3							
street					1	1	1										3				3				1			
Burns and scalds			1	2	3	1	1	3												2				2				1
Inhalation of illuminating gas	1				1								1				2	2			3	2			2			
Gun or pistol shot				1				1		2										1			2	1				1
Traumatic tetanus			1		1		2		1						1						1		1					
septicæmia					1				1												1					1		
Fracture of femur (and tibia)																	1				1							

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	AGE OF DECEDENT.																SOCIAL RELATIONS.							
	70 to 80 years.				80 to 90 years.				90 to 100 years.				Unknown age.				Married.				Single.			
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F
CLASS III.—LOCAL DISEASES.																								
Order 3.—*Respiratory organs.*																								
Asthma	1	1	1	1	1												2	1	3	4	2	1		
Pulmonary hemorrhage																		1		1			2	1
emphysema		1																						
Laryngismus stridulus																					2	1		
Total respiratory organs	25	18	7	3	5	14	4				3						79	44	43	26	111	81	135	146
Order 4.—*Digestive organs.*																								
Dentition																					5	3	2	19
Gastritis	1	1	1		1												7	3	2	1	2	4	4	2
Enteritis	1			1		1											3	2		1	11	9	15	22
Gastro-enteritis		1		2		1		2									2			3	3	3	15	16
Gastric catarrh						1			1								1		1					
Enteric catarrh					1													1			1	1	1	1
Gastro-intestinal catarrh	1	2				1											3	1		1	1	3	2	7
Gastric ulcer																	1	4	2					
Indigestion																	2		1		2	4		2
Colitis																	2				3		1	3
Appendicitis																	2	3			5	3	3	
Hepatitis	1					1		1									3		1			1		
Cirrhosis of liver	2																7	3	4	1	3		1	
Abscess of liver	1					1											2	1	1	3	2	2	1	
Hypertrophy of liver		1			1												1	1	1					
Atrophy of liver																	1	1						
Intussusception																		1	1					
Hernia (intestinal)			1														2	2	1				3	1
Intestinal stasis																								
Intestinal obstruction	2	2			1												4	2	2		3	4	1	2
gangrene																			1					
Peritonitis																	1	2		3	5	5	3	2
Enteric ulcer																	1							1
Diverticulum of œsophagus																	1					1		
Œdema of glottis																	1				1			
Waxy liver																	1				1			

Hæmophtisis																								1
Gastric congestion		1														1	1							
Strangulated omentum						1																		
Volvulus of the colon	1																							
Splenic tumor																	1							
Total diseases of digestive organs	10	8	2	3	4	7		3	1							53	31	18	14	55	51	51	80	
Order 5.—*Urinary organs.*																								
Bright's disease of the kidneys	2	2	1													14	2	6	4	7	3	2	4	
Nephritis	9	7	2	1	3		1	2								33	21	21	12	20	11	12	8	
Albuminuria	1															1	1							
Cystitis	2				2											3		3						
Diabetes	1															3	4	2				2	1	
Uræmia					3	1										4	1	3	1		1	2		
Enlarged prostate	2				1		1									6								
Perinephretic abscess																	2				1			
Cirrhosis of kidney																2								
Melasma suprarenal																				1				
Renal hemorrhage																				2				
calculi	1															1	2							
congestion		1																			1			
Stricture of urethra (operation)																1		1						
Rupture of bladder																1				1				
Cystic degeneration of kidney																							1	
Total urinary organs	18	10	3	1	9	1	2	2								69	33	36	17	31	17	18	14	
Order 6.—*Generative organs.*																								
Fibroids of the uterus		1																	5		4		1	
Ovarian tumors																	2						1	
Pyosalpinx																					1		5	
Ovarian cyst																	2		1					
Salpingo-oöphoritis																	1				1			
Total generative organs		1															5		6		6		7	
Order 7.—*Osseous and locomotory.*																								
Pelvic abscess																	2		5		1			
Gangrene of leg																								
Psoas abscess																		1				1		
Gangrene of foot	1							1								1			1				2	
Osteomyelitis of tibia																		1						

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	SOCIAL RELATIONS.								NATIVITY.													
	Widow or widower.				Unknown.				District of Columbia.				Other parts of United States.				Foreign.				Unknown.			
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS III.—LOCAL DISEASES.																								
Order 3.—*Respiratory organs.*																								
Asthma	....	2	1	6	....	....	....	....	1	.....	.....	1	2	3	4	9	1	.....	....	....	....	....	....	....
Pulmonary hemorrhage	....	....	....	....	....	....	....	....	.....	.....	1	1	.....	1	1	1	....	....	....	....	....	....	....	....
emphysema	....	1	....	1	....	....	....	....	.....	.....	.....	.....	.....	1	.....	1	....	....	....	....	....	....	....	....
Laryngismus stridulus	....	....	....	....	....	....	....	....	2	1	.....	.....	.....	.....	.....	.....	....	....	....	....	....	....	....	....
Total respiratory organs	26	45	9	19	....	....	....	....	96	90	117	132	78	57	70	59	42	23	....	....	....	....	....	....
Order 4.—*Digestive organs.*																								
Dentition	....	....	....	....	....	....	....	....	5	3	2	19	.....	.....	.....	.....	....	....	....	....	....	....	....	....
Gastritis	1	5	1	2	....	....	....	....	2	3	4	3	6	5	3	2	2	4	....	....	....	....	....	....
Enteritis	1	1	....	....	....	....	....	....	11	10	15	22	1	.....	.....	1	3	2	....	....	....	....	....	....
Gastro-enteritis	....	4	1	3	....	....	....	....	7	9	15	16	3	1	1	6	....	2	....	....	....	....	....	....
Gastric catarrh	1	1	....	....	....	....	....	....	1	.....	1	.....	1	1	.....	.....	....	....	....	....	....	....	....	....
Enteric catarrh	1	....	....	2	....	....	....	....	1	1	1	1	1	.....	.....	2	....	1	....	....	....	....	....	....
Gastro-intestinal catarrh	....	4	....	....	....	....	....	....	2	4	2	6	2	3	.....	2	....	1	....	....	....	....	....	....
Gastric ulcer	....	....	....	....	....	....	....	....	.....	1	.....	.....	1	2	2	.....	....	1	....	....	....	....	....	....
Indigestion	....	....	....	....	....	....	....	....	2	4	1	2	1	.....	.....	.....	1	....	....	....	....	....	....	....
Colitis	....	....	....	....	....	....	....	....	2	.....	.....	3	1	.....	1	.....	2	....	....	....	....	....	....	....
Appendicitis	....	....	....	....	....	....	....	....	4	1	3	.....	2	4	.....	.....	1	1	....	....	....	....	....	....
Hepatitis	....	2	....	2	....	....	....	....	.....	1	.....	.....	2	1	1	2	1	1	....	....	....	....	....	....
Cirrhosis of liver	2	....	2	1	....	....	....	....	6	.....	.....	.....	3	2	7	2	3	1	....	....	....	....	....	....
Abscess of liver	....	1	1	....	....	....	....	....	2	.....	1	.....	1	4	2	3	1	....	....	....	....	....	....	....
Hypertrophy of liver	1	1	....	....	....	....	....	....	1	1	.....	.....	.....	.....	1	.....	1	1	....	....	....	....	....	....
Atrophy of liver	....	....	....	....	....	....	....	....	.....	1	.....	.....	1	.....	.....	.....	....	....	....	....	....	....	....	....
Intussusception	....	....	....	....	....	....	....	....	.....	.....	.....	.....	.....	1	1	.....	....	....	....	....	....	....	....	....
Hernia (intestinal)	1	....	1	....	....	....	....	....	1	1	2	1	1	.....	3	.....	1	1	....	....	....	....	....	....
Intestinal stasis	....	1	....	....	....	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	....	1	....	....	....	....	....	....
Intestinal obstruction	2	2	....	....	....	....	....	....	2	3	.....	1	3	3	3	1	4	2	....	....	....	....	....	....
gangrene	....	....	....	1	....	....	....	....	.....	.....	.....	.....	.....	.....	1	1	....	....	....	....	....	....	....	....
Peritonitis	....	1	....	2	....	....	....	....	2	4	1	2	3	4	1	5	1	....	....	....	....	....	....	....
Enteric ulcer	....	....	....	....	....	....	....	....	1	.....	.....	1	.....	.....	.....	.....	....	....	....	....	....	....	....	....
Diverticulum of œsophagus	....	....	....	....	....	....	....	....	1	.....	.....	.....	.....	1	.....	.....	....	....	....	....	....	....	....	....
Œdema of glottis	....	....	....	....	....	....	....	....	1	.....	.....	.....	.....	.....	.....	.....	1	....	....	....	....	....	....	....
Waxy liver	....	....	1	....	....	....	....	....	2	.....	.....	.....	.....	.....	1	.....	....	....	....	....	....	....	....	....

Abscess, retroperitoneal									1															
Jaundice									1			1		1					1					
Obstruction of hepatic duct										1			2											
Hemorrhage, enteric												1	1											
Laryngeal paralysis										1				1										
Hæmophtisis												1												
Gastric congestion													1							1				
Strangulated omentum		1																		1				
Volvulus of the colon	1												1											
Splenic tumor																				1				
Total diseases of digestive organs	11	24	7	13					57	50	48	80	39	34	28	27	23	22						
Order 5.—*Urinary organs.*																								
Bright's disease of the kidneys	2	5	1	2					10	2		4	10	4	9	6	3	4						
Nephritis	17	12	9	9					14	13	11	10	39	24	31	19	17	7						
Albuminuria										1			1											
Cystitis	5												7		3		1							
Diabetes										2			3	2	4	1								
Uræmia	1	1							3		2		1	3	3	1	1							
Enlarged prostate	3		1						1				6		1		2							
Perinephretic abscess														2				1						
Cirrhosis of kidney	1												2				1							
Melasma suprarenal																	1							
Renal hemorrhage													1				1							
calculi	1								1				1	2										
congestion		1												2										
Stricture of urethra (operation)													1		1									
Rupture of bladder									1				1											
Cystic degeneration of kidney																1								
Total urinary organs	30	19	11	11					30	18	13	14	73	39	52	28	27	12						
Order 6.—*Generative organs.*																								
Fibroids of the uterus				1						1		1		3		6								
Ovarian tumors														1		1		1						
Pyosalpinx		2										1		3		4								
Ovarian cyst										1				1		1								
Salpingo-oöphoritis										1				1										
Total generative organs		2		1						3		2		9		12		1						
Order 7.—*Osseous and locomotory.*																								
Pelvic abscess		1								2		1		2		4								
Gangrene of leg				1								1												
Psoas abscess											1				1									
Gangrene of foot				1								1				3	1							
Osteomyelitis of tibia														1										

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	Total deaths from each cause.	Per cent of each cause to total mortality.	DEATH RATE. Deaths per 1,000 inhabitants.		RECAPITULATION. Total by color and sex.				Total by color.		Total by sex.		1896. July.				August.			
					W.		C.						W.		C.		W.		C.	
			W.	C.	M.	F.	M.	F.	W.	C.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS III.—LOCAL DISEASES.																				
Order 7.—*Osseous and locomotory.*																				
Necrosis of maxillary	2	.03	.....	.02	.....	.....	.....	2	.....	2	.....	2	.....	.....	.....	.....	.....	.....	.....	.....
ribs	1	.02	.....	.01	.....	.....	1	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kyphosis	1	.02	.....	.01	.....	.....	1	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total osseous and locomotory	22	.38	.03	.19	1	4	5	12	5	17	5	17	....	2	....	1	....	....	1	3
Order 5.—*Integumentary.*																				
Sarcomata and tumors	7	.12	.02	.05	1	2	3	1	3	4	4	3	....	....	1	....	1	1	....	....
Epistaxis	1	.02	.....	.01	.....	.....	.....	1	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
Total integumentary	8	.14	.02	.06	1	2	3	2	3	5	4	4	....	....	1	....	1	1	....	....
Total local diseases	2,643	46.05	8.01	12.74	881	631	565	566	1,512	1,131	1,446	1,197	69	53	57	71	99	54	43	43
CLASS IV.—DEVELOPMENTAL.																				
Order 1.—*Children.*																				
Premature birth	158	2.76	.50	.74	47	46	41	24	93	65	88	70	5	5	2	3	5	3	2	....
Congenital debility	58	1.01	.16	.34	15	14	10	19	29	29	25	33	1	1	2	5	2	2	3	3
Protracted labor	10	.17	.03	.05	3	3	2	2	6	4	5	5	2	....	....	....	1	....	....	....
Cyanosis	8	.14	.02	.05	4	.....	2	2	4	4	6	2	....	....	1	1	1	....	....	....
Umbilical sepsis	1	.02	.....	.01	.....	.....	1	.....	.....	1	1	.....	.....	.....	1	....	.....	.....	.....	....
hemorrhage	4	.06	.01	.03	.....	1	3	.....	1	3	3	1	....	....	....	....	....	....	1	....
Asphyxia	6	.10	.02	.02	2	2	2	.....	4	2	4	2	....	....	1	....	....	....	....	....
Icterus neonatorum	5	.09	.01	.03	2	.....	2	1	2	3	4	1	....	....	....	1	....	....	....	....
Forceps delivery	2	.03	.....	.01	1	.....	.....	1	1	1	1	1	....	....	....	1	....	....	....	....
Ophthalmia neonatorum	1	.03	.....	.02	.....	.....	.....	1	.....	2	1	1	....	....	....	1	....	....	....	....
Intercranial hemorrhage	3	.03	.01	.....	2	.....	1	.....	2	.....	2	.....	....	....	....	....	1	....	....	....
Open foramen ovale	8	.14	.02	.04	1	3	3	1	4	4	4	4	....	....	....	....	....	....	1	1
Omphalitis	1	.02	.....	.01	.....	.....	1	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	1	....

Order 2.—*Women.*																			
Puerperal convulsions	10	.17	.05	.02	.....	8	.....	2	8	2	.....	10	....	1	....	1	....	....	....	....
peritonitis	16	.29	.03	.12	.....	6	.....	10	6	10	.....	16	....	1	....	1	....	1	....	1
septicæmia	12	.22	.04	.06	.....	7	.....	5	7	5	.....	12	....	1	....	....	....	....	....	1
fever	6	.10	.01	.04	.....	2	.....	4	2	4	.....	6	....	....	....	....	....	....	....	....
Placenta previa	3	.05	.01	.01	.....	2	.....	1	2	1	.....	3	....	1	....	....	....	1	....	....
Endometritis	3	.05	.01	.01	.....	2	.....	1	2	1	.....	3	....	....	....	....	....	1	....	1
Abortion	7	.12	.02	.04	.....	3	.....	4	3	4	.....	7	....	....	....	....	....	....	....	2
Childbirth	2	.03	.01	.01	.....	1	.....	1	1	1	.....	2	....	....	....	....	....	....	....	....
Uterine hemorrhage	3	.05	.01	.01	.....	2	.....	1	2	1	.....	3	....	....	....	....	....	....	....	....
Extrauterine pregnancy	2	.03	.01	.....	.....	2	.....	.....	2	.....	.....	2	....	....	....	....	....	....	....	....
Puerperal mania	1	.02	.....	.01	.....	1	.....	.....	1	.....	.....	1	....	....	....	....	....	....	....	....
Rupture of uterus	2	.03	.....	.01	.....	1	.....	1	1	1	.....	2	....	....	....	....	....	....	....	....
Abscess of uterus	1	.02	.....	.01	.....	.....	.....	1	.....	1	.....	1	....	....	....	....	....	....	....	....
Total diseases of women	68	1.10	.20	.35	.....	37	.....	31	37	31	.....	68	....	4	....	2	....	3	....	5
Order 3.—*Old age.*																				
Senility	238	4.15	.81	.99	60	91	34	53	151	87	94	144	4	8	3	4	5	10	3	8
Senile gangrene	6	.10	.01	.02	2	2	1	1	4	2	3	3	....	....	....	....	....	....	....	....
Total old age	244	4.25	.82	1.01	62	93	35	54	155	89	97	147	4	8	3	4	5	10	3	8
Order 4.—*Nutrition.*																				
General debility	4	.07	.02	.....	.....	4	.....	.....	4	.....	.....	4	....	1	....	....	....	....	....	....
Total nutrition	4	.07	.02	.....	.....	4	.....	.....	4	.....	.....	4	....	1	....	....	....	....	....	....
Total developmental diseases	593	10.33	1.86	2.74	142	208	106	137	350	243	248	345	12	19	10	18	15	18	11	17
CLASS V.—VIOLENCE.																				
Order 1.—*Accidents and negligence.*																				
Drowning	29	.51	.05	.22	9	.....	18	2	9	20	27	1	2	....	3	....	2	....	2	....
Falls	28	.52	.11	.13	14	5	7	2	19	9	21	8	2	....	2	....	1	1	....	....
Railways, steam	15	.27	.06	.03	12	.....	3	.....	12	3	15	.....	2	....	1	....	1	....	....	....
street	9	.15	.04	.02	6	1	2	.....	7	2	8	1	....	....	....	....	1	1	1	....
Burns and scalds	22	.39	.06	.12	7	5	1	9	12	10	8	14	2	1	....	1	1	....	....	....
Inhalation of illuminating gas	11	.20	.05	.01	8	2	.....	1	10	1	8	3	....	....	....	....	....	....	....	....
Gun or pistol shot	5	.08	.....	.05	.....	.....	2	3	.....	5	2	3	....	....	....	....	....	....	....	....
Traumatic tetanus	7	.12	.02	.05	3	.....	4	.....	3	4	7	.....	1	....	1	....	....	....	....	....
septicæmia	4	.06	.02	.....	2	2	.....	.....	4	.....	2	2	1	....	....	....	....	....	....	....
Fracture of femur (and tibia)	2	.03	.02	.....	1	1	.....	.....	2	.....	1	1	....	....	....	....	....	....	....	....

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	1896.																								1897.			
	September.				Total first quarter.				October.				November.				December.				Total second quarter.				January.			
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS III.—LOCAL DISEASES.																												
Order 7.—*Osseous and locomotory.*																												
Necrosis of maxillary	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
ribs	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Kyphosis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total osseous and locomotory	....	....	....	....	....	2	1	4	1	1	1	2	....	....	....	....	....	....	1	....	1	1	2	2	....	....	....	3
Order 8.—*Integumentary.*																												
Sarcomata and tumors	....	....	1	....	1	1	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Epistaxis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total integumentary	....	....	1	....	1	1	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total local diseases	48	26	43	39	216	133	143	153	79	49	49	38	52	55	44	39	67	59	39	35	198	163	132	112	86	69	54	54
CLASS IV.—DEVELOPMENTAL.																												
Order 1.—*Children.*																												
Premature birth	3	4	3	4	13	12	7	7	1	6	5	3	4	5	3	1	1	2	2	....	6	13	10	4	4	4	4	2
Congenital debility	2	1	2	....	5	4	6	8	2	....	....	1	2	....	....	3	....	3	....	2	4	3	....	6	....	1	....	1
Protracted labor	....	....	1	....	3	....	1	....	....	....	....	1	....	....	1	....	....	1	....	....	....	1	1	1	....	....	....	....
Cyanosis	....	....	....	....	1	....	1	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	1	....	....	....
Umbilical sepsis	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
hemorrhage	....	....	1	....	....	....	2	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	....	....	....
Asphyxia	1	....	....	....	1	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....
Icterus neonatorum	1	....	....	....	1	....	....	1	....	....	....	....	1	....	1	....	....	....	....	....	1	....	1	....	....	....	....	....
Forceps delivery	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Ophthalmia neonatorum	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Intercranial hemorrhage	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Open foramen ovale	....	1	....	....	....	1	1	1	1	1	1	....	....	....	....	....	....	....	1	....	1	1	2	....	....	....	....	....
Omphalitis	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Congenital malformation (monstrosity)	....	....	1	....	....	....	2	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	1	....	....	....	....
Atelectasis	....	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Cleft palate	....	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....

Order 2.—*Women.*																														
Puerperal convulsions	....	1	....	....	....	2	....	1	....	3	....	....	....	1	....	....	....	....	....	....	....	4	....	....	....	....	....	....	....	....	....
peritonitis	....	....	....	....	....	2	....	2	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	....	....
septicæmia	....	....	....	....	....	1	....	1	....	2	....	....	....	....	....	1	....	....	....	....	....	2	....	1	....	1	....	....	....	....	....
fever	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....
Placenta previa	....	....	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....
Endometritis	....	....	....	....	....	1	....	1	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	....	....
Abortion	....	....	....	1	....	....	....	3	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....
Childbirth	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....
Uterine hemorrhage	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....
Extrauterine pregnancy	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	....	....
Puerperal mania	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Rupture of uterus	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Abscess of uterus	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total diseases of women	....	1	....	1	....	8	....	8	....	7	....	....	....	3	....	1	....	3	....	1	....	13	....	2	....	1	....	....	....	....	....
Order 3.—*Old age.*																														
Senility	2	7	1	4	11	25	7	16	8	6	5	6	5	11	4	2	8	6	1	2	21	23	10	10	3	12	4	2		
Senile gangrene	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	2	....	....	1	2	....	....	1	....	....	....	....	....	....
Total old age	2	7	1	4	11	25	7	16	8	6	5	6	6	11	4	2	8	8	1	2	22	25	10	10	4	12	4	2		
Order 4.—*Nutrition.*																														
General debility	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	2	....	....	....	....	....	....	....	....	....
Total nutrition	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	2	....	....	....	....	....	....	....	....	....
Total developmental diseases	9	16	10	9	36	53	31	44	12	20	11	11	13	21	10	8	9	20	4	5	34	61	25	24	10	18	8	5		
CLASS V.—VIOLENCE.																														
Order 1.—*Accidents and negligence.*																														
Drowning	....	....	1	....	4	....	6	....	....	....	....	....	1	....	1	....	....	....	....	....	1	....	1	....	....	....	....	1			
Falls	....	....	....	....	3	1	2	....	1	....	....	....	2	....	....	....	2	2	2	1	5	2	2	1	3	1	....	....		
Railways, steam	....	....	....	....	3	....	1	....	1	....	....	....	1	....	....	....	1	....	....	....	3	....	....	....	....	....	....	....		
street	....	....	....	....	1	1	1	....	....	....	....	....	....	....	....	....	3	....	....	....	3	....	....	....	1	....	....	....		
Burns and scalds	....	....	1	2	3	1	1	3	....	....	....	....	....	....	....	....	....	....	....	2	....	....	....	2	....	....	....	1		
Inhalation of illuminating gas	1	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	2	2	....	....	3	2	....	....	2	....	....	....		
Gun or pistol shot	....	....	....	1	....	....	1	....	....	2	....	....	....	....	....	....	....	....	....	1	....	....	2	1	....	....	....	1		
Traumatic tetanus	....	....	1	....	1	2	....	1	....	....	....	....	....	1	....	....	....	....	....	....	1	....	1	....	....	....	....	....		
septicæmia	....	....	....	....	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	1	....	....		
Fracture of femur (and tibia)	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....		

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	1897.																											
	February.				March.				Total third quarter.				April.				May.				June.				Total fourth quarter.			
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS III.—LOCAL DISEASES.																												
Order 7.—*Osseous and locomotory.*																												
Necrosis of maxillary				1								2																
ribs			1								1																	
Kyphosis																							1				1	
Total osseous and locomotory			1	1							1	4				2		1					1			1	1	2
Order 8.—*Integumentary.*																												
Sarcomata and tumors								1				1		1									1			1	1	
Epistaxis																								1				1
Total integumentary												1		1									1	1		1	1	1
Total local diseases	89	63	51	52	81	72	53	54	256	204	158	160	76	51	44	52	67	39	42	39	68	41	46	50	211	131	132	141
CLASS IV.—DEVELOPMENTAL.																												
Order 1.—*Children.*																												
Premature birth	3	2	4	3	4	3	6	1	11	9	14	6	6	2	3	2	6	5	1	3	5	5	6	2	17	12	10	7
Congenital debility	3	4	1			1		1	3	6	1	2			1		2		2	2	1	1		1	3	1	3	3
Protracted labor				1		1				1		1		1												1		
Cyanosis					1				2												1		1		1		1	
Umbilical sepsis																												
hemorrhage															1												1	
Asphyxia					1	1			1	1								1								1		
Icterus neonatorum							1				1																	
Forceps delivery													1												1			
Ophthalmia neonatorum																			1								1	
Intercranial hemorrhage	1								1																			
Open foramen ovalé														1												1		
Omphalitis																												
Congenital malformation (monstrosity)									1								1								1			
Atelectasis						1				1							1								1			
Cleft palate																												

Puerperal injury as mother																											
Spina bifida																						1					1
Total diseases of children	7	6	5	4	6	7	7	2	19	18	16	9	7	4	5	2	10	6	4	5	7	6	7	4	24	16	16	11
Order 2.—*Women.*																											
Puerperal convulsions						1				1										1		1				1		1
peritonitis		1				2		4		3		4				3								1				4
septicæmia		1		1		1		1		3		2						1		1						1		1
fever		1		3						1		3												1				1
Placenta previa																											
Endometritis																											
Abortion						1		1		1		1						1								1		
Childbirth																				1								1
Uterine hemorrhage				1								1		1												1		
Extrauterine pregnancy		1								1																		
Puerperal mania		1								1																		
Rupture of uterus						1				1						1												1
Abscess of uterus																								1				1
Total diseases of women		5		5		6		6		12		11		1		4		2		3		1		3		4		10
Order 3.—*Old age.*																											
Senility	4	5	4	8	5	8	3	8	12	25	11	18	3	6	3	2	6	5	3	4	7	7		3	16	18	6	9
Senile gangrene								1	1			1			1												1	
Total old age	4	5	4	8	5	8	3	9	13	25	11	19	3	6	4	2	6	5	3	4	7	7		3	16	18	7	9
Order 4.—*Nutrition.*																											
General debility						1				1																		
Total nutrition						1				1																		
Total developmental diseases	11	16	9	17	11	22	10	17	32	56	27	39	10	11	9	8	16	13	7	12	14	14	7	10	40	38	23	30
CLASS V.—VIOLENCE.																											
Order 1.—*Accidents and negligence.*																											
Drowning							3			3		1				3			4	1			4		4		8	1
Falls	2		1	1		1			5	2	1	2			1						1		1		1		2	
Railways, steam	2				1		1		3		1		1		1		1				1				3		1	
street									1										1		1				1		1	
Burns and scalds	2	1			1			1	3	1		2		1		1		1		1	1	1		1	3			2
Inhalation of illuminating gas	1				1				4							1												1
Gun or pistol shot												1																
Traumatic tetanus																					1		1		1		1	
septicæmia		1								2																		
Fracture of femur (and tibia)														1												1		

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	AGE OF DECEDENT.																								Total.	Per cent of each cause to total mortality under 5 years of age.
	Under 1 year.				1 to 2 years.				2 to 3 years.				3 to 4 years.				4 to 5 years.				Total under 5 years.					
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS III.—LOCAL DISEASES.																										
Order 7.—*Osseous and locomotory.*																										
Necrosis of maxillary																										
ribs																										
Kyphosis																										
Total osseous and locomotory																										
Order 8.—*Integumentary.*																										
Sarcoma and tumors																										
Epistaxis																										
Total integumentary																										
Total local diseases	143	63	156	154	20	43	33	56	7	4	12	13	1	8	6	11	4	4	6	5	175	122	218	239	749	40.42
CLASS IV.—DEVELOPMENTAL.																										
Order 1.—*Children.*																										
Premature birth	47	46	41	24																	47	46	41	24	158	8.54
Congenital debility	15	14	10	19																	15	14	10	19	58	8.13
Protracted labor	3	3	2	2																	3	3	2	2	10	.54
Cyanosis	4	....	2	2																	4	....	2	2	8	.44
Umbilical sepsis	....	....	1	....																	....	....	1	....	1	.05
hemorrhage	....	1	3	....																	....	1	3	....	4	.22
Asphyxia	2	2	2	....																	2	2	2	....	6	.32
Icterus neonatorum	2	....	2	1																	2	....	2	1	5	.27
Forceps delivery	1	....	....	1																	1	....	....	1	2	.11
Ophthalmia neonatorum	....	....	....	1																	....	....	....	1	1	.05
Intercranial hemorrhage	2	....	1	....																	2	....	1	....	3	.16
Open foramen ovalé	1	3	3	1																	1	3	3	1	8	.44
Omphalitis	....	....	1	....																	....	....	1	....	1	.05
Congenital malformation (monstrosity)	2	1	2	....																	2	1	2	....	5	.27
Atelectasis	1	2	....	....																	1	2	....	....	3	.16
Cleft palate	....	1	....	....																	....	1	....	....	1	.05

[illegible]				1																			1	1	.05
Total diseases of children	80	74	71	52																80	74	71	52	277	14.95
Order 2.—*Women.*																									
Puerperal convulsions																									
peritonitis																									
septicæmia																									
fever																									
Placenta previa																									
Endometritis																									
Abortion																									
Childbirth																									
Uterine hemorrhage																									
Extrauterine pregnancy																									
Puerperal mania																									
Rupture of uterus																									
Abscess of uterus																									
Total diseases of women																									
Order 3.—*Old age.*																									
Senility																									
Senile gangrene																									
Total old age																									
Order 4.—*Nutrition.*																									
General debility																									
Total nutrition																									
Total developmental diseases	80	74	71	52																80	74	71	52	277	14.95
CLASS V.—VIOLENCE.																									
Order 1.—*Accidents and negligence.*																									
Drowning																									
Falls								1												1				1	.05
Railways, steam																									
street																									
Burns and scalds				1	1						1	1			1			1		2		1	3	6	.34
Inhalation of illuminating gas																									
Gun or pistol shot																									
Traumatic tetanus			1																			1		1	.05
septicæmia																									
Fracture of femur (and tibia)																									

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	AGE OF DECEDENT.																											
	5 to 10 years.				10 to 20 years.				20 to 30 years.				30 to 40 years.				40 to 50 years.				50 to 60 years.				60 to 70 years.			
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS III.—LOCAL DISEASES.																												
Order 7.—*Osseous and locomotory.*																												
Necrosis of maxillary	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	1	....	....	....	1	....	....	....	....
ribs	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Kyphosis	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total osseous and locomotory	....	....	1	....	....	....	....	....	....	2	2	5	....	1	1	1	....	1	....	2	....	....	....	2	....	....	1	1
Order 8.—*Integumentary.*																												
Sarcomata and tumors	....	....	....	....	....	....	....	....	1	....	1	....	....	....	....	....	....	....	....	1	....	2	1	....	....	....	1	....
Epistaxis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....
Total integumentary	....	....	....	....	....	....	....	....	1	....	1	....	....	....	....	....	....	....	....	2	....	2	1	....	....	....	1	....
Total local diseases	6	8	13	14	17	12	22	19	38	45	35	42	59	46	42	54	89	84	62	63	146	88	73	57	205	101	63	46
CLASS IV.—DEVELOPMENTAL.																												
Order 1.—*Children.*																												
Premature birth	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Congenital debility	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Protracted labor	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Cyanosis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Umbilical sepsis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
hemorrhage	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Asphyxia	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Icterus neonatorum	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Forceps delivery	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Ophthalmia neonatorum	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Intercranial hemorrhage	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Open foramen ovalé	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Omphalitis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Congenital malformation (monstrosity)	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Atelectasis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Cleft palate	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....

Spina bifida																												
Total diseases of children																												
Order 2.—*Women.*																												
Puerperal convulsions						2		1		3				3		1												
peritonitis								2		3		4		3		3				1								
septicæmia						1				3		4		3		1												
fever								1		1		2		1		1												
Placenta previa												1		2														
Endometritis								1		1																1		
Abortion										2		3		1		1												
Childbirth								1		1																		
Uterine hemorrhage								1		2																		
Extrauterine pregnancy										1				1														
Puerperal mania														1														
Rupture of uterus														1		1												
Abscess of uterus																												1
Total diseases of women						3		7		17		14		16		8				1						1		1
Order 3.—*Old age.*																												
Senility																					1	2	1	2	3	6	7	8
Senile gangrene																									1			
Total old age																					1	2	1	2	4	6	7	8
Order 4.—*Nutrition.*																												
General debility																						3						
Total nutrition																						3						
Total developmental diseases						3		7		17		14		16		8				1	1	5	1	2	4	7	7	9
CLASS V.—VIOLENCE.																												
Order 1.—*Accidents and negligence.*																												
Drowning	1		1		2		7		1		5	1	1		2	1	2		2		1		1		1			
Falls					1		1		2		2		1	1		1	4		2		2	2	2		2	1		1
Railways, steam					1				4		2						2				3				2			
street						1	1								1		2								2			
Burns and scalds	1	1			1	1		2	1	1		1	1			1		1				1		1	1			
Inhalation of illuminating gas					1			1	2	1			1								1				2			
Gun or pistol shot				1			1				1					1				1								
Traumatic tetanus	1										1		1		1		1		1									
septicæmia													1	1								1			1			
Fracture of femur (and tibia)																	1											

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	1897.																											
	February.				March.				Total third quarter.				April.				May.				June.				Total fourth quarter.			
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS V.—VIOLENCE.																												
Order 1.—*Accidents and negligence.*																												
Carbolic acid (burns)																												
Fracture of skull					1				1				1						1		3				4		1	
Corrosive poison																	1				1				2			
Falling wall																												
Explosion of gasoline																												
Shock from fire																												
Strangulation															1													1
Narcotic poison						1				1					1		1								1		1	
Fall of bucket of gravel in bottom of well																												
Hysterectomy																												
Surgical operation																		1						1		1		1
Fracture of pelvis (fall of embankment)															1											1		
Concussion of brain																		1			1			1	1	1		1
Total accidents and negligence	7	2	1	1	4	2	4	1	17	6	5	5	3	2	4	3	6	3	6	2	10	1	6	2	19	6	16	7
Order 2.—*Judicial execution.*																												
Hanging																												
Total judicial execution																												
Order 3.—*Homicides.*																												
Gunshot (or pistol)			1								1								1			1				1	1	
Stabbed																												
Strychnine poisoning																												
Concussion of brain															1												1	
Total homicides			1								1				1				1			1				1	2	
Order 4.—*Suicides.*																												
Gun or pistol shot	1				1			1	3		1	1					2				2				4			
Narcotic poison		1							1								1											
Corrosive poison																												

Total diseases of children																				80	74	71	52
Order 2.—*Women.*																							
Puerperal convulsions																	8		1				1
peritonitis																	6		6				3
septicæmia																	7		5				
fever																	2		3				1
Placenta previa																	2		1				
Endometritis																	2						1
Abortion																	3		1				3
Childbirth																	1						1
Uterine hemorrhage																	1						1
Extrauterine pregnancy																	2						
Puerperal mania																	1						
Rupture of uterus																	1		1				
Abscess of uterus																							
Total diseases of women																	36		18				11
Order 3.—*Old age.*																							
Senility	33	37	16	19	20	42	6	12	3	4	4	12					21	2	8	2	9	15	4	46
Senile gangrene	1	2	1	1													1	2			1			
Total old age	34	39	17	20	20	42	6	12	3	4	4	12					22	4	8	2	10	15	4	46
Order 4.—*Nutrition.*																							
General debility		1																1				1		
Total nutrition		1																1				1		
Total developmental diseases	34	40	17	20	20	42	6	12	3	4	4	12					22	41	8	20	90	90	75	109
CLASS V.—VIOLENCE.																							
Order 1.—*Accidents and negligence.*																							
Drowning																	3		3	1	6		15	1
Falls	1					1											9	1	2	1	4	4	3	
Railways, steam			1														5				6		2	
street	2																2		1			1	1	
Burns and scalds												1								2	7	3	1	5
Inhalation of illuminating gas	1								1								1				4	1		1
Gun or pistol shot																				2			2	1
Traumatic tetanus																	1		1		2		2	
septicæmia																	1	1			1			
Fracture of femur (and tibia)						1											1							

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	AGE OF DECEDENT.																							
	Under 1 year.				1 to 2 years.				2 to 3 years.				3 to 4 years.				4 to 5 years.				Total under 5 years.				Total.	Per cent of each cause to total mortality under 5 years of age.
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS V.—VIOLENCE.																										
Order 1.—*Accidents and negligence.*																										
Carbolic acid (burns)	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	1	0.06
Fracture of skull	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	.....
Corrosive poison	....	....	....	....	1	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1	1	3	.16
Falling wall	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	.....
Explosion of gasoline	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	.....
Shock from fire	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	.....
Strangulation	1	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	2	3	.16
Narcotic poison	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	.....
Fall of bucket of gravel in bottom of well	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	.....
Hysterectomy	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	.....
Surgical operation	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	.....
Fracture of pelvis (fall of embankment)	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	.....
Concussion of brain	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	.....
Total accidents and negligence	1	....	1	3	2	....	1	1	1	....	....	1	2	....	....	1	....	....	1	....	6	....	3	6	15	.81
Order 2.—*Judicial execution.*																										
Hanging	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	.....
Total judicial execution	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	.....
Order 3.—*Homicides.*																										
Gunshot (or pistol)	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	.....
Stabbed	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	.....
Strychnine poisoning	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	.....
Concussion of brain	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	.....
Total homicides	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	.....
Order 4.—*Suicides.*																										
Gun or pistol shot	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	.....
Narcotic poison	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	.....
Corrosive poison	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	.....

Inhalation of illuminating gas																								
Jumped from window																								
Strangulation																								
Burns (suicidal intent)																								
Total suicides																								
Order 5.—*Injuries received in late civil war.*																								
Gunshot wounds																								
Total wounds in late civil war																								
Total violence	1	....	1	3	2	....	1	1	1	....	....	1	2	....	....	1	....	....	1	....	6	....	3	6	....	....
Grand total from all causes, by sex and color	372	291	374	374	50	60	65	80	17	9	25	27	12	19	13	23	11	5	11	15	462	384	488	519	1,853	100.00
RECAPITULATION.																										
Zymotic:																										
Miasmatic diseases	84	88	91	97	26	12	15	11	9	3	2	5	7	11	2	7	6	1	1	4	131	115	111	124	481	25.96
Enthetic diseases	3	3	9	11	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	3	9	11	26	1.40
Dietic diseases	12	16	16	23	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	13	16	16	23	68	3.66
Parasitic diseases	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	2	.11
Total zymotic diseases	99	107	117	132	26	12	15	11	9	3	2	5	7	11	2	7	6	1	1	4	147	134	137	159	577	31.13
Constitutional:																										
Diathetic diseases	....	....	1	....	....	....	....	....	....	....	....	1	....	....	....	....	1	....	....	....	1	....	1	1	3	.16
Tubercular diseases	49	47	28	33	2	5	16	12	....	2	11	7	2	....	5	4	....	....	3	6	53	54	63	62	232	12.53
Total constitutional diseases	49	47	29	33	2	5	16	12	....	2	11	8	2	....	5	4	1	....	3	6	54	54	64	63	235	12.69
Local:																										
Nervous system	50	26	57	40	8	4	5	5	1	1	....	2	....	4	1	1	....	....	1	....	59	35	64	48	206	11.12
Circulatory organs	1	1	2	1	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	3	1	2	1	7	.37
Respiratory organs	57	15	54	48	12	31	27	43	3	2	11	10	1	1	4	8	2	3	4	5	75	52	100	114	341	18.41
Digestive organs	30	21	39	65	....	8	1	7	1	1	1	1	....	3	1	2	1	1	....	....	32	34	42	75	183	9.88
Urinary organs	5	....	4	....	....	....	....	1	1	....	....	....	....	....	....	....	....	....	1	....	6	....	5	1	12	.64
Generative organs	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Osseous and locomotory	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Integumentary	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total local diseases	143	63	156	154	20	43	33	56	7	4	12	13	1	8	6	11	4	4	6	5	175	122	213	239	749	40.42
Developmental:																										
Infants	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Women	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Old age	80	74	71	52	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	80	74	71	52	277	14.95
Nutrition	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total developmental	80	74	71	52	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	80	74	71	52	277	14.95

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	Total deaths from each cause.	Per cent of each cause to total mortality.	DEATH RATE. Deaths per 1,000 inhabitants.		RECAPITULATION. Total by color and sex.				Total by color.		Total by sex.		1896. July.				August.			
					W.		C.						W.		C.		W.		C.	
			W.	C.	M.	F.	M.	F.	W.	C.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS V.—VIOLENCE.																				
Order 1.—*Accidents and negligence.*																				
Carbolic acid (burns)	2	.03	.01	.....	1	1	.....	.....	2	.....	1	1	.....	.....	.....	.....	1	.....	.....	.....
Fracture of skull	8	.14	.03	.02	6	.....	2	.....	6	2	8	.....	.....	.....	.....	.....	.....	.....	1	.....
Corrosive poison	5	.09	.01	.03	2	.....	2	1	2	3	4	1	.....	.....	.....	.....	.....	.....	.....	1
Falling wall	1	.02	.....	.....	1	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Explosion of gasoline	1	.02	.....	.....	1	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Shock from fire	2	.03	.....	.01	1	.....	1	.....	1	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Strangulation	4	.06	.....	.03	1	.....	.....	3	1	3	1	3	.....	.....	.....	.....	.....	.....	.....	.....
Narcotic poison	4	.06	.02	.01	2	1	1	.....	3	1	3	1	.....	.....	.....	.....	.....	.....	.....	.....
Fall of bucket of gravel in bottom of well	1	.02	.01	.....	1	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hysterectomy	1	.02	.01	.....	.....	1	.....	.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
Surgical operation	3	.05	.01	.01	1	1	.....	1	2	1	1	2	.....	.....	.....	.....	.....	.....	.....	.....
Fracture of pelvis (fall of embankment)	1	.02	.....	.01	.....	.....	1	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Concussion of brain	3	.03	.01	.01	1	1	.....	1	2	1	1	2	.....	.....	.....	.....	.....	.....	.....	.....
Total accidents and negligence	168	2.94	.53	.76	80	21	44	23	101	67	124	44	10	1	7	1	7	2	4	1
Order 2.—*Judicial execution.*																				
Hanging	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total judicial execution	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Order 3.—*Homicides.*																				
Gunshot (or pistol)	5	.09	.01	.03	1	1	3	.....	2	3	4	1	.....	.....	.....	.....	1	.....	.....	.....
Stabbed	3	.05	.....	.03	.....	.....	3	.....	.....	3	3	.....	.....	.....	1	.....	.....	.....	.....	.....
Strychnine poisoning	1	.02	.....	.01	.....	.....	.....	1	.....	1	.....	1	.....	.....	.....	1	.....	.....	.....	.....
Concussion of brain	2	.04	.01	.01	1	.....	1	.....	1	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total homicides	11	.20	.02	.09	2	1	7	1	3	8	9	2	.....	.....	1	1	1	.....	.....	.....

Deaths (suicidal intent)	1					1			1			1							
Total suicides	47	.82	.201	.08	36	4	5	2	40	7	41	6	1				2		2	
Order 5.—*Injuries received in late civil war.*																			
Gunshot wounds	1	.02	.001		1				1		1									
Total wounds in late civil war	1	.02	.001		1				1		1									
Total violence	227	3.99	.77	.92	119	26	56	26	145	82	175	52	11	1	8	2	10	2	6	1
Grand total from all causes by sex and color	5,737	100	17.04	28.39	1,773	1,443	1,211	1,310	3,216	2,521	2,984	2,753	170	164	164	180	185	149	112	119
RECAPITULATION.																				
Zymotic:																				
Miasmatic diseases	891	15.53	2.77	4.18	269	254	162	206	523	368	431	460	43	56	50	56	29	33	23	33
Enthetic diseases	35	.60	.04	.30	4	4	12	15	8	27	16	19			2	3	1	2	1	1
Dietic diseases	99	1.72	.24	.61	26	20	22	31	46	53	48	51	4	1	3	6	3	4	2	3
Parasitic diseases	2	.05		.01			1	1		2	1	1			1					1
Total zymotic diseases	1,027	17.90	3.05	5.10	299	278	197	253	577	450	496	531	47	57	56	65	33	39	26	38
Constitutional:																				
Diathetic diseases	194	3.38	.68	.72	55	74	17	48	129	65	72	122	9	9	1	3	6	6	1	2
Tubercular diseases	1,053	18.35	2.67	6.25	277	226	270	280	503	550	547	506	22	25	32	21	22	30	25	18
Total constitutional diseases	1,247	21.73	3.35	6.97	332	300	287	328	632	615	619	628	31	34	33	24	28	36	26	20
Local:																				
Nervous system	685	11.94	2.32	2.81	273	164	138	110	437	248	411	274	23	15	19	13	49	24	11	10
Circulatory organs	423	7.37	1.29	2.02	141	103	91	88	244	179	232	191	10	6	6	9	8	6	8	8
Respiratory organs	764	13.31	2.05	4.29	216	170	187	191	386	378	403	361	2	5	8	13	5	2	8	4
Digestive organs	408	7.11	1.19	2.08	119	106	76	107	225	183	195	213	22	17	16	28	17	14	11	13
Urinary organs	306	5.34	1.05	1.22	130	69	65	42	199	107	195	111	12	6	7	7	19	7	4	3
Generative organs	27	.46	.06	.16		13		14	13	14		27		2						2
Osseous and locomotory	22	.38	.03	.19	1	4	5	12	5	17	5	17		2		1			1	3
Integumentary	8	.14	.02	.06	1	2	3	2	3	5	4	4			1		1	1		
Total local diseases	2,643	46.05	8.01	12.83	881	631	565	566	1,512	1,131	1,446	1,197	69	53	57	71	99	54	43	43
Developmental:																				
Infants	277	4.82	.82	1.41	80	74	71	52	154	123	151	126	8	6	7	12	10	5	8	4
Women	68	1.10	.20	.35		37		31	37	31		68		4		2		3		5
Old age	244	4.25	.82	1.01	62	93	35	54	155	89	97	147	4	8	3	4	5	10	3	8
Nutrition	4	.07	.02			4			4			4		1						
Total developmental	593	10.33	1.86	2.76	142	208	106	137	350	243	248	345	12	19	10	18	15	18	11	17

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	AGE OF DECEDENT.																SOCIAL RELATIONS.							
	70 to 80 years.				80 to 90 years.				90 to 160 years.				Unknown age.				Married.				Single.			
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS V.—VIOLENCE.																								
Order 1.—*Accidents and negligence.*																								
Carbolic acid (burns)																		1			1			
Fracture of skull																	4		1		2		1	
Corrosive poison																					2		2	1
Falling wall																					1			
Explosion of gasoline																	1							
Shock from fire																	1						1	
Strangulation																					1			2
Narcotic poison																		1			1		1	
Fall of bucket of gravel in bottom of well																	1							
Hysterectomy																		1						
Surgical operation	1																1			1				
Fracture of pelvis (fall of embankment)																			1					
Concussion of brain																	1							1
Total accidents and negligence	5		1			2				1		1					32	5	9	7	38	10	31	12
Order 2.—*Judicial execution.*																								
Hanging																								
Total judicial execution																								
Order 3.—*Homicides.*																								
Gunshot (or pistol)																		1			1		3	
Stabbed																							3	
Strychnine poisoning																				1				
Concussion of brain																	1						1	
Total homicides																	1	1		1	1		7	
Order 4.—*Suicides.*																	5		1		8		1	

Jumped from window																5	1	1		3			
Strangulation																				1			
Burns (suicidal intent)																	1				1		
Total suicides																16	2	3		15	2	2	2
Order 5.—*Injuries received in late civil war.*																							
Gunshot wounds																1							
Total wounds in late civil war																1							
Total violence	5		1			2				1		1				50	8	12	8	54	13	40	14
Grand total from all causes by sex and color	190	172	54	57	51	90	17	25	4	6	7	15				636	393	320	255	916	687	775	867
RECAPITULATION.																							
Zymotic:																							
Miasmatic diseases	19	19	1	6	3	9		1								43	38	11	32	205	173	145	158
Enthetic diseases																	1		4	4	3	10	11
Dietic diseases						1	1									4	1		3	21	18	21	25
Parasitic diseases																						1	1
Total zymotic diseases	19	19	1	6	3	10	1	1								47	40	11	39	230	194	177	195
Constitutional:																							
Diathetic diseases	4	12		5		2	1					1				33	39	13	20	17	11	1	10
Tubercular diseases	10	7	5	7	1	3										86	60	76	50	168	134	177	205
Total constitutional diseases	14	19	5	12	1	5	1					1				119	99	89	70	185	145	178	215
Local:																							
Nervous system	43	34	12	4	6	5	2	1				1				116	48	46	16	118	64	78	63
Circulatory organs	21	23	6	8	3	4	1	5		1						79	40	53	29	42	25	20	22
Respiratory organs	25	18	7	3	5	14	4				3					79	44	43	26	111	81	135	146
Digestive organs	10	8	2	3	4	7		3	1							53	31	18	14	55	51	51	80
Urinary organs	18	10	3	1	9	1	2	2								69	33	36	17	31	17	18	14
Generative organs		1															5		6		6		7
Osseous and locomotory	1							1								1	2	2	8		1	3	2
Integumentary																1	2	2	2				
Total local diseases	118	94	30	19	27	31	9	12	1	1	3	1				398	205	200	118	357	245	305	304
Developmental:																							
Infants																				80	74	71	52
Women																	36		18				11
Old age	34	39	17	20	20	42	6	12	3	4	4	12				22	4	8	2	10	15	4	46
Nutrition		1															1				1		
Total developmental	34	40	17	20	20	42	6	12	3	4	4	12				22	41	8	20	90	90	75	109

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	SOCIAL RELATIONS.								NATIVITY.															
	Widow or widower.				Unknown.				District of Columbia.				Other parts of United States.				Foreign.				Unknown.			
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS V.—VIOLENCE.																								
Order 1.—*Accidents and negligence.*																								
Carbolic acid (burns)									1					1										
Fracture of skull									3				1		2		2							
Corrosive poison									2		1	1			1									
Falling wall													1											
Explosion of gasoline													1											
Shock from fire											1						1							
Strangulation				1					1			2				1								
Narcotic poison	1												1	1	1		1							
Fall of bucket of gravel in bottom of well													1											
Hysterectomy														1										
Surgical operation		1							1					1		1								
Fracture of pelvis (fall of embankment)															1									
Concussion of brain		1											1	1		1								
Total accidents and negligence	10	6	4	4					26	3	17	8	34	13	27	15	20	5						
Order 2.—*Judicial execution.*																								
Hanging																								
Total judicial execution																								
Order 3.—*Homicides.*																								
Gunshot (or pistol)									1						3			1						
Stabbed											3													
Strychnine poisoning															1									
Concussion of brain															1		1							
Total homicides									1		3				4	1	1	1						
Order 4.—*Suicides.*																								

Burns (suicidal intent)										1				1									
Total suicides	5								5	1		1	21	4	5	1	10						
Order 5.—*Injuries received in late civil war.*																							
Gunshot wounds																	1						
Total wounds in late civil war																	1						
Total violence	15	6	4	4					32	4	20	9	55	17	36	17	32	6					
Grand total from all causes by sex and color	221	363	116	188					771	649	691	772	644	549	519	538	358	245	1				
RECAPITULATION.																							
Zymotic:																							
Miasmatic diseases	21	43	8	16					182	160	140	160	60	64	21	46	27	30	1				
Enthetic diseases			2						3	3	9	11		1	3	4	1						
Dietic diseases	1	1	1	3					20	17	21	26	3	3	1	5	3						
Parasitic diseases											1	1											
Total zymotic diseases	22	44	11	19					205	180	171	198	63	68	25	55	31	30	1				
Constitutional:																							
Diathetic diseases	5	24	3	18					8	15	4	5	27	35	13	43	20	24					
Tubercular diseases	23	32	17	25					134	123	142	192	102	81	128	88	41	22					
Total constitutional diseases	28	56	20	43					142	138	146	197	129	116	141	131	61	46					
Local:																							
Nervous system	39	52	14	31					98	54	86	61	105	74	52	49	70	36					
Circulatory organs	20	38	18	37					20	18	15	17	75	49	76	71	46	36					
Respiratory organs	26	45	9	19					96	90	117	132	78	57	70	59	42	23					
Digestive organs	11	24	7	13					57	50	48	80	39	34	28	27	23	22					
Urinary organs	30	19	11	11					30	18	13	14	73	39	52	28	27	12					
Generative organs		2		1						3		2		9		12		1					
Osseous and locomotory		1		2						2	3	3		2	2	9	1						
Integumentary									1					2	3	2							
Total local diseases	126	181	59	114					302	235	282	309	370	266	283	257	209	130					
Developmental:																							
Infants									80	74	71	52											
Women		1		2						8		7		21		24		8					
Old age	30	74	23	6					10	10	1		27	59	34	54	25	24					
Nutrition		2												2				2					
Total developmental	30	77	23	8					90	92	72	59	27	82	34	78	25	34					

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	AGE OF DECEDENT.																									
	Under 1 year.				1 to 2 years.				2 to 3 years.				3 to 4 years.				4 to 5 years.				Total under 5 years.				Total.	Per cent of each cause to total mortality under 5 years of age.
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS V.—VIOLENCE.																										
Order 1.—*Accidents and negligence.*																										
Carbolic acid (burns)	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	1	0.06
Fracture of skull	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Corrosive poison	....	....	....	....	1	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1	1	3	.16
Falling wall	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Explosion of gasoline	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Shock from fire	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Strangulation	1	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	2	3	.16
Narcotic poison	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Fall of bucket of gravel in bottom of well	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Hysterectomy	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Surgical operation	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Fracture of pelvis (fall of embankment)	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Concussion of brain	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total accidents and negligence	1	....	1	3	2	....	1	1	1	....	....	1	2	....	....	1	....	....	1	....	6	....	3	6	15	.81
Order 2.—*Judicial execution.*																										
Hanging	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total judicial execution	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Order 3.—*Homicides.*																										
Gunshot (or pistol)	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Stabbed	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Strychnine poisoning	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Concussion of brain	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total homicides	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Order 4.—*Suicides.*																										

Cause of death.	1896.																								1897.			
	September.				Total first quarter.				October.				November.				December.				Total second quarter.				January.			
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
RECAPITULATION.																												
Violence:																												
Accidents and negligence	4	....	3	3	21	3	14	5	5	....	5	1	7	1	2	1	11	5	2	4	23	6	9	6	6	2	....	3
Judicial execution	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Homicides	1	....	1	....	2	....	2	1	....	....	....	....	....	....	1	....	....	....	1	....	....	....	2	....	....	....	....	....
Suicides	4	....	....	1	7	....	2	1	4	1	....	....	4	1	1	....	4	1	....	....	12	3	1	....	4	....	2	....
Injuries received in late civil war	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....
Total violence	9	....	4	4	30	3	18	7	9	1	5	1	11	2	4	1	15	6	3	4	35	9	12	6	11	2	2	3
SUMMARY.																												
I. Zymotic	28	18	17	24	108	114	99	127	33	20	5	21	19	10	8	11	26	17	12	4	78	47	25	36	18	23	11	11
II. Constitutional	24	26	22	34	83	96	81	78	34	27	25	26	29	24	14	24	28	18	28	28	91	69	67	78	23	31	23	30
III. Local	48	26	43	39	216	133	143	153	79	49	49	38	52	55	44	39	67	59	39	35	198	163	132	112	86	69	54	54
IV. Developmental	9	16	10	9	36	53	31	44	12	20	11	11	13	21	10	8	9	20	4	5	34	61	25	24	10	18	8	5
V. Violence	9	....	4	4	30	3	18	7	9	1	5	1	11	2	4	1	15	6	3	4	35	9	12	6	11	2	2	3
Grand total from all causes	118	86	96	110	473	399	372	409	167	117	95	97	124	112	80	83	145	120	86	76	436	349	261	256	148	143	98	103
Total from all causes, by color	204		206		872		781		284		192		236		163		265		162		785		517		291		201	
Percentages, by color, to total mortality	3.56		3.59		15.20		13.60		4.95		3.35		4.11		2.84		4.61		2.82		13.68		9.01		4.07		3.50	
Death rate per 1,000 inhabitants, by color	1.08		2.33		4.61		8.85		1.50		2.17		1.25		1.84		1.40		1.82		4.15		5.86		1.54		2.28	
Grand aggregate	410				1,653				476				399				427				1,302				492			
Death rate per 1,000 inhabitants, total population	1.48				5.96				1.72				1.44				1.54				4.70				1.77			

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	AGE OF DECEDENT.																											
	5 to 10 years.				10 to 20 years.				20 to 30 years.				30 to 40 years.				40 to 50 years.				50 to 60 years.				60 to 70 years.			
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS V.—VIOLENCE.																												
Order 1.—*Accidents and negligence.*																												
Carbolic acid (burns)	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Fracture of skull	....	....	....	....	1	....	....	....	....	....	1	....	1	....	1	....	....	....	....	....	3	....	....	....	1	....	....	....
Corrosive poison	....	....	....	....	....	....	....	....	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Falling wall	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Explosion of gasoline	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....
Shock from fire	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....
Strangulation	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
Narcotic poison	....	....	1	....	....	....	....	....	....	....	....	....	1	....	....	....	....	1	....	....	1	....	....	....	....	....	....	....
Fall of bucket of gravel in bottom of well	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....
Hysterectomy	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Surgical operation	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	1	....	....	....	....	....
Fracture of pelvis (fall of embankment)	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....
Concussion of brain	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	1	....	....
Total accidents and negligence	3	1	3	1	7	2	10	4	11	3	13	2	9	3	6	4	15	3	5	1	11	4	3	2	13	2	....	2
Order 2.—*Judicial execution.*																												
Hanging	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total judicial execution	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Order 3.—*Homicides.*																												
Gunshot (or pistol)	....	....	....	....	1	....	1	....	....	....	1	....	....	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....
Stabbed	....	....	....	....	....	....	2	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Strychnine poisoning	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....
Concussion of brain	....	....	....	....	....	....	....	....	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total homicides	....	....	....	....	1	....	3	....	1	....	3	....	....	1	....	....	....	....	1	1	....	....	....	....	....	....	....	....
Order 4.—*Suicides.*																												
Gun or pistol shot	....	....	....	....	....	....	....	....	3	....	1	....	7	....	1	....	3	....	....	....	4	....	....	....	....	....	....	....

Burns (suicidal intent)																	1											
Total suicides							1	4	2	2	2	12	1	1		6	2	1		9		1		5				
Order 5.—*Injuries received in late civil war.*																												
Gunshot wounds																								1				
Total wounds in late civil war																								1				
Total violence	3	1	3	1	8	2	13	5	16	4	18	3	21	5	7	4	21	5	7	2	20	4	4	2	19	2		2
Grand total from all causes, by sex and color	35	36	35	34	51	54	96	112	135	135	126	145	168	123	92	126	159	144	102	104	232	139	109	90	286	161	92	83
RECAPITULATION.																												
Zymotic:																												
Miasmatic diseases	22	22	10	11	15	15	10	16	25	15	11	15	15	7	5	12	8	16	4	7	13	13	3	6	18	23	7	8
Enthetic diseases										1	2					1			1		1							3
Dietic diseases								1	3	1	2	1	4	1	3		3	1		3	1			2	2			1
Parasitic diseases																												
Total zymotic diseases	22	22	10	11	15	15	10	17	28	17	15	16	19	8	8	13	11	17	5	10	15	13	3	8	20	23	7	12
Constitutional:																												
Diathetic diseases			1		2	1		2	1	2		2	10	12	1	7	8	12	7	8	14	17	3	13	15	16	3	9
Tubercular diseases	4	5	8	8	9	21	41	62	52	50	58	68	59	36	34	40	30	26	24	20	36	12	25	8	23	12	12	5
Total constitutional diseases	4	5	9	8	11	22	41	64	53	52	58	70	69	48	35	47	38	38	31	28	50	29	28	21	38	28	15	14
Local:																												
Nervous system	2		3	3	2	2	4	1	8	10	4	4	16	7	8	7	26	29	14	11	46	22	11	13	65	21	16	17
Circulatory organs	1	1	3	1	3	3	7	4	3	5	3	7	8	9	10	10	22	9	21	17	28	18	18	20	49	29	20	15
Respiratory organs	2	5	5	8	2	2	6	7	16	8	17	13	16	7	11	14	21	17	9	11	25	22	20	13	29	25	5	8
Digestive organs	1	1	1	2	8	2	3	2	5	7	4	4	8	8	3	6	6	11	8	8	22	14	6	4	22	14	7	
Urinary organs		1			2	3	2	3	5	9	4	3	11	12	9	14	14	12	10	10	25	9	17	3	40	12	13	5
Generative organs								2		4		6		2		2		5		2		1		2				
Osseous and locomotory			1							2	2	5		1	1	1		1		2				2			1	1
Integumentary									1		1									2		2	1				1	
Total local diseases	6	8	13	14	17	12	22	19	38	45	35	42	59	46	42	54	89	84	62	63	146	88	73	57	205	101	63	46
Developmental:																												
Infants																												
Women						3		7		17		14		16		8				1						1		1
Old age																					1	2	1	2	4	6	7	8
Nutrition																						3						
Total developmental						3		7		17		14		16		8				1	1	5	1	2	4	7	7	9

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	AGE OF DECEDENT.																SOCIAL RELATIONS.							
	70 to 80 years.				80 to 90 years.				90 to 100 years.				Unknown age.				Married.				Single.			
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS V.—VIOLENCE.																								
Order 1.—*Accidents and negligence.*																								
Carbolic acid (burns)																		1			1			
Fracture of skull																	4		1		2		1	
Corrosive poison																					2		2	1
Falling wall																					1			
Explosion of gasoline																	1							
Shock from fire																	1						1	
Strangulation																					1			2
Narcotic poison																		1			1		1	
Fall of bucket of gravel in bottom of well																	1							
Hysterectomy																		1						
Surgical operation	1																1			1				
Fracture of pelvis (fall of embankment)																			1					
Concussion of brain																	1							1
Total accidents and negligence	5		1			2				1		1					32	5	9	7	38	10	31	12
Order 2.—*Judicial execution.*																								
Hanging																								
Total judicial execution																								
Order 3.—*Homicides.*																								
Gunshot (or pistol)																		1			1		3	
Stabbed																							3	
Strychnine poisoning																				1				
Concussion of brain																	1						1	
Total homicides																	1	1		1	1		7	
Order 4.—*Suicides.*																								
Gun or pistol shot																	5		1		8	1	1	2
Narcotic poison																	1							
Corrosive poison																					2		1	

[illegible]																	1				1		
Total suicides															16	2	3		15	2	2	2
Order 5.—*Injuries received in late civil war.*																						
Gunshot wounds															1							
Total wounds in late civil war															1							
Total violence	5		1		2			1		1					50	8	12	8	54	13	40	14
Grand total from all causes by sex and color	190	172	54	57	51	90	17	25	4	6	7	15			636	393	320	255	916	687	775	867
RECAPITULATION.																						
Zymotic:																						
Miasmatic diseases	19	19	1	6	3	9		1							43	38	11	32	205	173	145	158
Enthetic diseases																1		4	4	3	10	11
Dietic diseases						1	1								4	1		3	21	18	21	25
Parasitic diseases																					1	1
Total zymotic diseases	19	19	1	6	3	10	1	1							47	40	11	39	230	194	177	195
Constitutional:																						
Diathetic diseases	4	12		5		2	1					1			33	39	13	20	17	11	1	10
Tubercular diseases	10	7	5	7	1	3									86	60	76	50	168	134	177	205
Total constitutional diseases	14	19	5	12	1	5	1					1			119	99	89	70	185	145	178	215
Local:																						
Nervous system	43	34	12	4	6	5	2	1				1			116	48	46	16	118	64	78	63
Circulatory organs	21	23	6	8	3	4	1	5		1					79	40	53	29	42	25	20	22
Respiratory organs	25	18	7	3	5	14	4				3				79	44	43	26	111	81	135	146
Digestive organs	10	8	2	3	4	7		3	1						53	31	18	14	55	51	51	80
Urinary organs	18	10	3	1	9	1	2	2							69	33	36	17	31	17	18	14
Generative organs		1														5		6		6		7
Osseous and locomotory	1							1							1	2	2	8		1	3	2
Integumentary															1	2	2	2				
Total local diseases	118	94	30	19	27	31	9	12	1	1	3	1			398	205	200	118	357	245	305	304
Developmental:																						
Infants																			80	74	71	52
Women																36		18				11
Old age	34	39	17	20	20	42	6	12	3	4	4	12			22		8	2	10	15	4	46
Nutrition		1														1				1		
Total developmental	34	40	17	20	20	42	6	12	3	4	4	12			22	41	8	20	90	90	75	109

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	SOCIAL RELATIONS.								NATIVITY.															
	Widow or widower.				Unknown.				District of Columbia.				Other parts of United States.				Foreign.				Unknown.			
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS V.—VIOLENCE.																								
Order 1.—*Accidents and negligence.*																								
Carbolic acid (burns)									1					1										
Fracture of skull									3				1		2		2							
Corrosive poison									2		1	1			1									
Falling wall													1											
Explosion of gasoline													1											
Shock from fire											1						1							
Strangulation				1					1			2				1								
Narcotic poison	1												1	1	1		1							
Fall of bucket of gravel in bottom of well													1											
Hysterectomy														1										
Surgical operation		1							1					1		1								
Fracture of pelvis (fall of embankment)															1									
Concussion of brain		1											1	1		1								
Total accidents and negligence	10	6	4	4					26	3	17	8	34	13	27	15	20	5						
Order 2.—*Judicial execution.*																								
Hanging																								
Total judicial execution																								
Order 3.—*Homicides.*																								
Gunshot (or pistol)									1						3			1						
Stabbed											3													
Strychnine poisoning																1								
Concussion of brain															1		1							
Total homicides									1		3				4	1	1	1						
Order 4.—*Suicides.*																								
Gun or pistol shot	2								2				10		2		3							
Narcotic poison	3								2			1	5	1	1	1	1							
Corrosive poison																	1							

Total suicides	5								5	1		1	21	4	5	1	10						
Order 5.—*Injuries received in late civil war.*																							
Gunshot wounds																	1						
Total wounds in late civil war																	1						
Total violence	15	6	4	4					32	4	20	9	55	17	36	17	32	6					
Grand total from all causes by sex and color	221	363	116	188					771	649	691	772	644	549	519	538	358	245	1				
RECAPITULATION.																							
Zymotic:																							
Miasmatic diseases	21	43	8	16					182	160	140	160	60	64	21	46	27	30	1				
Enthetic diseases			2						3	3	9	11		1	3	4	1						
Dietic diseases	1	1	1	3					20	17	21	26	3	3	1	5	3						
Parasitic diseases											1	1											
Total zymotic diseases	22	44	11	19					205	180	171	198	63	68	25	55	31	30	1				
Constitutional:																							
Diathetic diseases	5	24	3	18					8	15	4	5	27	35	13	43	20	24					
Tubercular diseases	23	32	17	25					134	123	142	192	102	81	128	88	41	22					
Total constitutional diseases	28	56	20	43					142	138	146	197	129	116	141	131	61	46					
Local:																							
Nervous system	39	52	14	31					98	54	86	61	105	74	52	49	70	36					
Circulatory organs	20	38	18	37					20	18	15	17	75	49	76	71	46	36					
Respiratory organs	26	45	9	19					96	90	117	132	78	57	70	59	42	23					
Digestive organs	11	24	7	13					57	50	48	80	39	34	28	27	23	22					
Urinary organs	30	19	11	11					30	18	13	14	73	39	52	28	27	12					
Generative organs		2		1						3		2		9		12		1					
Osseous and locomotory		1		2						2	3	3		2	2	9	1						
Integumentary									1					2	3	2							
Total local diseases	126	181	59	114					302	235	282	309	370	266	283	257	209	130					
Developmental:																							
Infants									80	74	71	52											
Women		1		2						8		7		21		24		8					
Old age	30	74	23	6					10	10	1		27	59	34	54	25	24					
Nutrition		2												2				2					
Total developmental	30	77	23	8					90	92	72	59	27	82	34	78	25	34					

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	Total deaths from each cause.	Per cent of each cause to total mortality.	DEATH RATE. Deaths per 1,000 inhabitants.		RECAPITULATION. Total by color and sex.				Total by color.		Total by sex.		1896. July.				August.			
					W.		C.						W.		C.		W.		C.	
			W.	C.	M.	F.	M.	F.	W.	C.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
RECAPITULATION.																				
Violence:																				
Accidents and negligence	168	2.94	.53	.76	80	21	44	23	101	67	124	44	10	1	7	1	7	2	4	1
Judicial execution																				
Homicides	11	.20	.02	.09	2	1	7	1	3	8	9	2	....	....	1	1	1	....	....	....
Suicides	47	.82	.20	.08	36	4	5	2	40	7	41	6	1	....	....	....	2	....	2	....
Injuries received in late civil war	1	.02	....	....	1	....	....	....	1	....	1	....	....	....	....	....	....	....	....	....
Total violence	227	3.99	.77	.95	119	26	56	26	145	82	175	52	11	1	8	2	10	2	6	1
SUMMARY.																				
I. Zymotic	1,027	17.90	3.05	5.06	299	278	197	253	577	450	496	531	47	57	56	65	33	39	26	38
II. Constitutional	1,247	21.73	3.35	6.93	332	300	287	328	632	615	619	628	31	34	33	24	28	36	26	20
III. Local	2,643	46.05	8.01	12.74	881	631	565	566	1,512	1,131	1,446	1,197	69	53	57	71	99	54	43	43
IV. Developmental	593	10.33	1.86	2.74	142	208	106	137	350	243	248	345	12	19	10	18	15	18	11	17
V. Violence	227	3.99	.77	.92	119	26	56	26	145	82	175	52	11	1	8	2	10	2	6	1
Grand total from all causes	5,737	100	17.04	28.39	1,773	1,443	1,211	1,310	3,216	2,521	2,984	2,753	170	164	164	180	185	149	112	119
Total from all causes, by color					3,216		2,521						334		344		334		231	
Percentages, by color, to total mortality					56.06		43.94						5.82		5.99		5.82		4.02	
Death rate per 1,000 inhabitants, by color													1.76		3.90		1.76		2.62	
Grand aggregate					5,737								678				565			
Death rate per 1,000 inhabitants, total population					20.71								2.44				2.04			

Cause of death.	September.				Total first quarter.				October.				November.				December.				Total second quarter.				January.			
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
RECAPITULATION.																												
Violence:																												
Accidents and negligence	4	....	3	3	21	3	14	5	5	....	5	1	7	1	2	1	11	5	2	4	23	6	9	6	6	2	....	3
Judicial execution	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Homicides	1	....	1	....	2	....	2	1	....	....	....	....	....	....	1	....	....	....	1	....	....	....	2	....	....	....	....	....
Suicides	4	....	....	1	7	....	2	1	4	1	....	....	4	1	1	....	4	1	....	....	12	3	1	....	4	....	2	....
Injuries received in late civil war	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....
Total violence	9	....	4	4	30	3	18	7	9	1	5	1	11	2	4	1	15	6	3	4	35	9	12	6	11	2	2	3
SUMMARY.																												
I. Zymotic	28	18	17	24	108	114	99	127	33	20	5	21	19	10	8	11	26	17	12	4	78	47	25	36	18	23	11	11
II. Constitutional	24	26	22	34	83	96	81	78	34	27	25	26	29	24	14	24	28	18	28	28	91	69	67	78	23	31	23	30
III. Local	48	26	43	39	216	133	143	153	79	49	49	38	52	55	44	39	67	59	39	35	198	163	132	112	86	69	54	54
IV. Developmental	9	16	10	9	36	53	31	44	12	20	11	11	13	21	10	8	9	20	4	5	34	61	25	24	10	18	8	5
V. Violence	9	....	4	4	30	3	18	7	9	1	5	1	11	2	4	1	15	6	3	4	35	9	12	6	11	2	2	3
Grand total from all causes	118	86	96	110	473	399	372	409	167	117	95	97	124	112	80	83	145	120	86	76	436	349	261	256	148	143	98	103
Total from all causes, by color	204		206		872		781		284		192		236		163		265		162		785		517		291		201	
Percentages, by color, to total mortality	3.56		3.59		15.20		13.60		4.95		3.35		4.11		2.84		4.61		2.82		13.68		9.01		4.07		3.50	
Death rate per 1,000 inhabitants, by color	1.08		2.33		4.61		8.85		1.50		2.17		1.25		1.84		1.40		1.82		4.15		5.86		1.54		2.28	
Grand aggregate	410				1,653				476				399				427				1,302				492			
Death rate per 1,000 inhabitants, total population	1.48				5.96				1.72				1.44				1.54				4.70				1.77			

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	1897.																											
	February.				March.				Total third quarter.				April.				May.				June.				Total fourth quarter.			
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
RECAPITULATION.																												
Violence:																												
Accidents and negligence	7	2	1	1	4	2	4	1	17	6	5	5	3	2	4	3	6	3	6	2	10	1	6	2	19	6	16	7
Judicial execution	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Homicides	....	....	1	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	1	....	....	1	....	....	....	1	2	....
Suicides	2	....	....	....	2	....	....	1	8	....	2	1	2	....	....	....	4	1	....	....	3	....	....	....	9	1	....	....
Injuries received in late civil war	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total violence	9	2	2	1	6	2	4	2	26	6		6	5	2	5	3	10	4	7	2	13	2	6	2	28	8	18	7
SUMMARY.																												
I. Zymotic	30	32	9	22	10	23	11	8	58	78	31	41	12	13	4	10	12	5	8	10	31	21	30	29	55	39	42	49
II. Constitutional	32	28	23	30	33	20	26	33	88	79	72	93	27	19	22	32	21	18	26	22	22	19	19	25	70	56	67	79
III. Local	89	63	51	52	81	72	53	54	256	204	158	160	76	51	44	52	67	39	42	39	68	41	46	50	211	131	132	141
IV. Developmental	11	16	9	17	11	22	10	17	32	56	27	39	10	11	9	8	16	13	7	12	14	14	7	10	40	38	23	30
V. Violence	9	2	2	1	6	2	4	2	26	6	8	6	5	2	5	3	10	4	7	2	13	2	6	2	28	8	18	7
Grand total from all causes	171	141	94	122	141	139	104	114	460	423	296	339	130	96	84	105	126	79	90	85	148	97	108	116	404	272	282	306
Total from all causes, by color	312		216		280		218		883		635		226		189		205		175		245		224		676		588	
Percentages, by color, to total mortality	5.44		3.77		4.76		3.80		15.27		11.07		3.94		3.30		3.57		3.05		4.26		3.90		11.77		10.25	
Death rate per 1,000 inhabitants, by color	1.65		2.45		1.48		2.48		4.67		7.20		1.19		2.14		1.08		1.97		1.29		2.54		3.58		6.67	
Grand aggregate	528				498				1,518				415				380				469				1,264			
Death rate per 1,000 inhabitants, total population	1.91				1.79				5.48				1.49				1.37				1.69				4.56			

Cause of death.	Under 1 year.				1 to 2 years.				2 to 3 years.				3 to 4 years.				4 to 5 years.				5 years.				Total.	Percentage of each cause to total mortality under 5 years of age.
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
RECAPITULATION.																										
Violence:																										
Accidents and negligence	1	....	1	3	2	....	1	1	1	....	....	1	2	....	....	1	....	....	1	....	6	....	3	6	15	.81
Judicial execution	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Homicides	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Suicides	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Injuries received in late civil war	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total violence	1	....	1	3	2	....	1	1	1	....	....	1	2	....	....	1	....	....	1	....	6	....	3	6	15	.81
SUMMARY.																										
I. Zymotic	99	107	117	132	26	12	15	11	9	3	2	5	7	11	2	7	6	1	1	4	147	134	137	159	577	31.13
II. Constitutional	49	47	29	33	2	5	16	12	....	2	11	8	2	....	5	4	1	....	3	6	54	54	64	63	235	12.69
III. Local	143	63	156	154	20	43	33	56	7	4	12	13	1	8	6	11	4	4	6	5	175	122	213	239	749	40.42
IV. Developmental	80	74	71	52	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	80	74	71	52	277	14.95
V. Violence	1	....	1	3	2	....	1	1	1	....	....	1	2	....	....	1	....	....	1	....	6	....	3	6	15	.81
Grand total from all causes	372	291	374	374	50	60	65	80	17	9	25	27	12	19	13	23	11	5	11	15	462	384	488	519	1,853	100.00
Total from all causes, by color	663		748		110		145		26		52		31		36		16		26		846		1,007		.....	.....
Percentages, by color, to total mortality	11.55		13.04		1.92		2.53		.45		.90		.54		.63		.28		.45		14.74		17.55		.....	.....
Death rate per 1,000 inhabitants, by color	3.51		8.48		.58		1.64		.14		.59		.16		.40		.08		.30		4.48		11.40		.....	.....
Grand aggregate	1,411				255				78				67				42				1,853				.....	.....
Death rate per 1,000 inhabitants, total population.	5.09				.92				.28				.24				.15				6.69				.....	.....

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	AGE OF DECEDENT.																											
	5 to 10 years.				10 to 20 years.				20 to 30 years.				30 to 40 years.				40 to 50 years.				50 to 60 years.				60 to 70 years.			
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
RECAPITULATION.																												
Violence:																												
Accidents and negligence	3	1	3	1	7	2	10	4	11	3	13	2	9	3	6	4	15	3	5	1	11	4	3	2	13	2	....	2
Judicial execution	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Homicides	....	....	....	....	1	....	3	....	1	....	3	....	....	1	....	....	....	....	1	1	....	....	....	....	....	....	....	....
Suicides	....	....	....	....	....	....	....	1	4	1	2	1	12	1	1	....	6	2	1	....	9	....	1	....	5	....	....	....
Injuries received in late civil war	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....
Total violence	3	1	3	1	8	2	13	5	16	4	18	3	21	5	7	4	21	5	7	2	20	4	4	2	19	2	....	2
SUMMARY.																												
I. Zymotic	22	22	10	11	15	15	10	17	28	17	15	16	19	8	8	13	11	17	5	10	15	13	3	8	20	23	7	12
II. Constitutional	4	5	9	8	11	22	41	64	53	52	58	70	69	48	35	47	38	38	31	28	50	29	28	21	38	28	15	14
III. Local	6	8	13	14	17	12	22	19	38	45	35	42	59	46	42	54	89	84	62	63	146	88	73	57	205	101	63	46
IV. Developmental	....	....	....	....	....	3	....	7	....	17	....	14	....	16	....	8	....	....	....	1	1	5	1	2	4	7	7	9
V. Violence	3	1	3	1	8	2	13	5	16	4	18	3	21	5	7	4	21	5	7	2	20	4	4	2	19	2	....	2
Grand total from all causes	35	36	35	34	51	54	86	112	135	135	126	145	168	123	92	126	159	144	105	104	232	139	109	90	286	161	92	83
Total from all causes, by color	71		69		105		208		270		271		291		218		303		199		371		199		447		175	
Percentages, by color, to total mortality	1.23		1.20		1.83		2.58		4.71		4.73		5.07		3.80		5.27		3.47		6.47		3.47		7.89		3.05	
Death rate per 1,000 inhabitants, by color	.37		.78		.54		2.36		1.40		3.07		1.52		2.46		1.58		2.25		1.96		2.24		2.36		1.98	
Grand aggregate	140				313				541				509				502				570				622			
Death rate per 1,000 inhabitants, total population	.50				1.13				1.95				1.83				1.81				2.05				2.24			

Cause of death.	70 to 80 years.				80 to 90 years.				90 to 100 years.				Unknown age.				Married.				Single.			
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
RECAPITULATION.																								
Violence:																								
Accidents and negligence	5	....	1	....	....	2	....	....	....	1	....	1	....	....	....	....	32	5	9	7	38	10	31	12
Judicial execution	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Homicides	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	....	1	1	....	7	....
Suicides	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	16	2	3	....	15	3	2	2
Injuries received in late civil war	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....
Total violence	5	....	1	....	....	2	....	....	....	1	....	1	....	....	....	....	50	8	12	8	54	13	40	14
SUMMARY.																								
I. Zymotic	19	19	1	6	3	10	1	1	....	....	....	....	....	....	....	....	47	40	11	39	230	194	177	195
II. Constitutional	14	19	5	12	1	5	1	....	....	....	....	1	....	....	....	....	119	99	89	70	185	145	178	215
III. Local	118	94	30	19	27	31	9	12	1	1	3	1	....	....	....	....	398	205	200	118	357	245	305	304
IV. Developmental	34	40	17	20	20	42	6	12	3	4	4	12	....	....	....	....	22	41	8	20	90	90	75	109
V. Violence	5	....	1	....	....	2	....	....	....	1	....	1	....	....	....	....	50	8	12	8	54	13	40	14
Grand total from all causes	190	172	54	57	51	90	17	25	4	6	7	15	....	....	....	....	636	393	320	255	916	687	775	867
Total from all causes, by color	362		111		140		42		10		22		.....		.....		1,029		575		1,603		1,642	
Percentages, by color, to total mortality	6.31		1.93		2.46		.73		.17		.37		.....		.....		17.93		10.02		27.94		28.62	
Death rate per 1,000 inhabitants, by color	1.93		1.25		.73		.47		.05		.25		.....		.....		5.45		6.52		8.49		18.62	
Grand aggregate	473				182				32				.....				1,604				3,245			
Death rate per 1,000 inhabitants, total population	1.70				.65				.11				.....				5.79				11.71			

TABLE I.—*Showing total number of deaths occurring in the District of Columbia, etc.*—Continued.

Cause of death.	SOCIAL RELATIONS.								NATIVITY.													
	Widow or widower.				Unknown.				District of Columbia.				Other parts of United States.				Foreign.				Unknown.			
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
RECAPITULATION.																								
Violence:																								
Accidents and negligence	10	6	4	4	....	....	....	....	26	3	17	8	34	13	27	15	20	5	....	....	....	....	....	....
Judicial execution	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Homicides	....	....	....	....	....	....	....	....	1	....	3	....	....	....	4	1	1	1	....	....	....	....	....	....
Suicides	5	....	....	....	....	....	....	....	5	1	....	1	21	4	5	1	10	....	....	....	....	....	....	....
Injuries received in late civil war	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....
Total violence	15	6	4	4	....	....	....	....	32	4	20	9	55	17	36	17	32	6	....	....	....	....	....	....
SUMMARY.																								
I. Zymotic	22	44	11	19	....	....	....	....	205	180	171	198	63	68	25	55	31	30	1	....	....	....	....	....
II. Constitutional	28	56	20	43	....	....	....	....	142	138	146	197	129	116	141	131	61	46	....	....	....	....	....	....
III. Local	126	181	58	114	....	....	....	....	302	235	282	309	370	266	283	257	209	130	....	....	....	....	....	....
IV. Developmental	80	77	23	8	....	....	....	....	90	92	72	59	27	82	34	78	25	34	....	....	....	....	....	....
V. Violence	15	6	4	4	....	....	....	....	32	4	20	9	55	17	36	17	32	6	....	....	....	....	....	....
Grand total from all causes	221	364	116	188	....	....	....	....	771	649	691	772	644	549	519	538	358	245	1	....	....	....	....	....
Total from all causes, by color	584		304		....	....	....	....	1,420		1,463		1,193		1,057		603		1	....	....	....	....	....
Percentages, by color, to total mortality	10.18		5.30		....	....	....	....	24.75		25.50		20.79		18.42		10.52		.02	....	....	....	....	....
Death rate per 1,000 inhabitants, by color	3.09		3.44		....	....	....	....	7.50		16.60		6.31		11.98		3.19		.01	....	....	....	....	....
Grand aggregate	888				....	....	....	....	2,883				2,250				604			....	....	....	....	....
Death rate per 1,000 inhabitants, total population	3.26				....	....	....	....	10.40				8.12				2.18			....	....	....	....	....

also daily meteorological conditions and variations for year ended June 30, 1896.

[Barometer reduced to sea level. T. indicates trace of precipitation.]

JULY, 1896.

Meteorological conditions.												
Mean barometer (actual).	Mean relative humidity.	Temperature (exposed bulb).				Mean (wet bulb).	Mean dew-point.	Direction of wind.		Total movement of wind.	Rainfall.	Day of month.
		Maximum.	Minimum.	Range.	Mean.			8 a. m.	8 p. m.			
30.26	69	87	58	29	72	68	64	S.	SE.	107	.....	1
30.20	66	87	61	26	74	68	62	S.	SE.	93	.....	2
30.04	84	90	70	20	80	70	67	SW.	SW.	120	0.21	3
29.97	86	88	69	19	78	71	70	S.	SW.	172	.03	4
29.90	82	85	75	10	80	73	72	SW.	S.	126	T.	5
29.86	89	84	72	12	78	72	70	SW.	S.	140	.05	6
29.98	84	84	68	16	76	69	67	SW.	N.	150	.19	7
30.08	89	69	61	8	65	63	61	N.	NE.	201	.23	8
30.12	83	83	67	16	75	72	70	SE.	SW.	191	.75	9
30.26	90	82	68	14	75	72	72	S.	S.	128	.04	10
30.20	76	86	71	15	78	72	69	SW.	SW.	108	.....	11
30.11	69	91	69	22	80	72	70	S.	SW.	83	.....	12
29.99	66	90	73	17	82	72	69	NW.	W.	163	.....	13
29.95	81	88	75	13	82	74	72	SW.	W.	82	.02	14
29.81	86	90	74	16	82	77	76	S.	0	102	.07	15
29.84	80	83	68	15	76	66	70	NW.	NE.	113	.43	16
30.16	62	78	60	18	69	60	56	N.	N.	139	T.	17
30.33	64	81	56	25	68	64	58	0	SE.	91	.....	18
30.34	75	79	60	19	70	67	64	E.	S.	111	.....	19
30.11	76	89	71	18	80	74	72	S.	S.	214	.....	20
30.07	85	86	75	11	80	74	72	NW.	S.	98	.01	21
29.94	89	88	73	15	80	74	74	S.	S.	152	.98	22
30.01	62	83	70	13	76	67	62	NW.	NW.	208	.....	23
29.90	75	76	67	9	72	68	66	N.	S.	68	.41	24
30.05	67	80	65	15	72	64	60	NW.	0	150	.01	25
30.12	73	84	60	24	72	68	64	W.	S.	129	.....	26
29.97	78	94	70	24	82	76	74	SW.	SW.	156	.....	27
30.08	76	92	75	17	84	74	70	W.	SW.	101	.01	28
30.06	86	92	73	19	82	74	74	W.	N.	91	.24	29
29.93	62	92	72	20	82	70	66	W.	NW.	140	.01	30
29.96	60	83	64	19	74	65	59	NW.	N.	184	.....	31
30.05	76.0	85.3	68.1	17.2	76.6	70.0	68.0	SW.	S.	4,111	3.69	

TABLE III.—*Deaths under 1 year of age, arranged by months, for year ending June 30, 1897*—Continued.

	1 day and under.	1 day to 1 week.	1 week to 1 month.	1 month to 2 months.	2 months to 3 months.	3 months to 4 months.	4 months to 5 months.	5 months to 6 months.	6 months to 7 months.	7 months to 8 months.	8 months to 9 months.	9 months to 10 months.	10 months to 11 months.	11 months to 12 months.	Total.	Total, by color.
November, 1896:																
White males	0	6	3	3	1	3	0	0	0	0	1	0	1	1	19	36
females	2	3	1	5	6	0	0	0	0	0	0	0	0	0	17	
Colored males	2	7	0	2	1	2	1	0	0	2	0	2	1	1	21	45
females	4	3	3	0	3	2	3	0	0	1	3	1	0	1	24	
Total	8	19	7	10	11	7	4	0	0	3	4	3	2	3	81	81
December, 1896:																
White males	0	3	4	3	4	2	1	0	1	0	3	0	0	0	21	42
females	4	3	2	5	2	2	1	0	0	0	0	2	0	0	21	
Colored males	2	2	4	2	1	0	4	0	1	0	1	1	0	1	19	31
females	1	2	1	3	3	0	0	1	1	0	0	0	0	0	12	
Total	7	10	11	13	10	4	6	1	3	0	4	3	0	1	73	73
January, 1897:																
White males	3	3	8	3	3	1	2	0	0	0	0	1	1	3	28	51
females	3	3	2	1	3	3	1	0	1	1	3	0	1	1	23	
Colored males	4	3	4	2	0	2	5	2	2	1	0	1	1	0	27	47
females	1	3	4	5	1	1	0	2	2	1	0	0	0	0	20	
Total	11	12	18	11	7	7	8	4	5	3	3	2	3	4	98	98
February, 1897:																
White males	5	1	5	3	2	0	1	1	1	4	1	0	1	1	26	46
females	3	0	4	4	3	1	0	1	2	0	0	1	1	0	20	
Colored males	3	3	4	1	2	0	0	2	0	1	1	1	0	0	18	51
females	3	5	2	3	3	5	2	2	0	2	1	2	2	1	33	
Total	14	9	15	11	10	6	3	6	3	7	3	4	4	2	97	97
March, 1897:																
White males	7	2	5	3	2	2	1	1	2	1	0	1	0	1	28	47
females	4	0	2	3	1	0	4	1	1	0	0	0	1	2	19	
Colored males	5	2	6	3	4	3	3	1	1	1	1	2	0	1	33	60
females	2	3	3	5	4	1	4	1	1	1	0	2	0	0	27	
Total	18	7	16	14	11	6	12	4	5	3	1	5	1	4	107	107
April, 1897:																
White males	7	2	2	1	2	1	3	1	0	0	1	0	0	0	20	38
females	3	3	3	1	1	0	1	1	0	0	2	3	0	0	18	
Colored males	2	2	2	1	1	0	1	0	2	0	1	1	0	1	14	35
females	1	3	2	2	6	3	1	0	2	1	0	0	0	0	21	
Total	13	10	9	5	10	4	6	2	4	1	4	4	0	1	73	73
May, 1897:																
White males	7	3	3	4	1	0	1	1	1	0	0	1	1	0	23	32
females	5	1	1	1	1	0	0	0	0	0	0	0	0	0	9	
Colored males	1	4	2	4	1	1	4	3	1	1	2	1	1	0	26	47
females	5	3	4	0	0	3	1	1	0	1	2	0	0	1	21	
Total	18	11	10	9	3	4	6	5	2	2	4	2	2	1	79	79
June, 1897:																
White males	4	3	6	3	2	4	4	2	1	2	2	2	4	1	40	67
females	4	1	2	1	1	4	1	4	4	4	1	0	0	0	27	
Colored males	4	6	5	3	2	3	1	1	3	2	3	2	2	4	41	84
females	3	2	4	3	1	8	4	5	5	1	2	4	0	1	43	
Total	15	12	17	10	6	19	10	12	13	9	8	8	6	6	151	151

III.—*Deaths under 1 year of age, arranged by months, for year ending June 30, 1897*—Continued.

RECAPITULATION.

Ages.	Grand total.	Per cent to total mortality.	White males.		White females.		Colored males.		Colored females.	
			Total.	Per cent to total mortality.	Total.	Per cent to total mortality.	Total.	Per cent to total mortality.	Total.	Per cent to total mortality.
under	174	12.4	53	14.3	44	15.1	46	12.3	31	8.3
week	149	10.6	37	9.9	21	7.2	49	13.1	42	11.2
1 month	165	11.7	56	15.1	29	9.9	46	12.3	34	9.1
o 2 months	139	9.9	32	8.7	36	12.4	37	9.9	34	9.1
to 3 months	127	9.1	27	7.3	30	10.3	31	8.3	39	10.5
to 4 months	119	8.4	28	7.5	23	7.9	26	6.9	42	11.2
to 5 months	104	7.4	29	7.8	17	5.8	29	7.8	29	7.8
to 6 months	81	5.7	18	4.8	22	7.6	15	4	26	6.9
to 7 months	75	5.3	19	5.1	13	4.5	19	5.1	24	6.4
to 8 months	67	4.7	16	4.3	11	3.8	19	5.1	21	5.6
to 9 months	70	4.9	20	5.4	14	4.8	16	4.3	20	5.4
to 10 months	67	4.7	15	4	14	4.8	17	4.5	21	5.6
to 11 months	35	2.4	11	2.9	6	2.1	13	3.5	5	1.3
to 12 months	39	2.8	11	2.9	11	3.8	11	2.9	6	1.6
al	1,411	100	372	100	291	100	374	100	374	100
al, by color			663				748			
o total mortality year old, by color			46.99				53.01			

IV.—*Number of deaths of children under 5 years of age from the principal diseases of children for the year ended June 30, 1897.*

Diseases.	White.		Colored.	
	Deaths.	Percentage of total mortality under 5 years old.	Deaths.	Percentage of total mortality under 5 years old.
	1	.12	2	.19
	2	.22	2	.19
ia	39	4.61	20	1.99
ver	0			
larial fever	0			
l diseases	157	18.56	167	16.60
g cough	27	3.21	35	3.48
	15	1.77	27	2.68
ar diseases (excluding consumption)	90	10.62	85	8.44
tion	17	2.01	40	3.97
eases of brain	42	4.96	30	2.98
ons	37	4.39	69	6.85
nascentium	8	.94	8	.80
s	24	2.84	46	4.57
n of lungs	19	2.25	33	3.28
ia	80	9.46	130	12.90
of the digestive organs	66	7.80	117	11.60
ental diseases	154	18.20	123	12.22
s and negligence	6	.71	9	.90
s	62	7.83	64	6.36
al	846	100.00	1,007	100.00
ge of mortality by color under 5 years old	45.65		54.35	
eath rate by color	4.41		11.34	

TABLE X.—*Daily mortality, classified by color, different diseases, violence, and*

SEPTEMBER, 1896.

Day of month.	Color.	Mortality.																														
		Total deaths, less those by violence.	Deaths by violence.			Deaths, by ages.					Scarlet fever.	Croup.	Diphtheria.	Diarrheal diseases.	Typhoid fever.	Typho-malarial fever.	Malarial fevers.	Phthisis pulmonalis.	Pneumonia.	Bronchitis.	Congestion of lungs.	Pleurisy.	Diseases of nervous system.	Diseases of the circulatory organs.	Rheumatism.	Diseases of digestive organs.	All other diseases.	Total deaths, by color.	Total deaths.
			Accidents and negligence.	Homicides.	Suicides.	60 years old and over, less those by violence.	Under 5 years old, less those by violence.	Under 8 days old, less those by violence.	1 day old and under, less those by violence.																							
1	W.	6				1	2							2				3									1	6	11
	C.	5				1												1						3			1	5	
2	W.	3				1																	1	1			1	3	8
	C.	5					2							2	1			1									1	5	
3	W.	7		1															1				1				4	8	17
	C.	9				2	4								1			1	1					1		1	4	9	
4	W.	9				2	3	1	1				1		2			2									4	9	16
	C.	7				1	4	1										2					1	1		1	2	7	
5	W.	6				1	3							1				1								3	1	6	11
	C.	5					1							1	1			3						1				5	
6	W.	12				3	2	1	1									2	2				1	2		1	4	12	18
	C.	6					2							1				1			1			1		2		6	
7	W.	3					1						1	1										1				3	11
	C.	7		1			5	2										1	1			2		1		1	1	8	
8	W.	3					1																				3	3	9
	C.	6				2							1		1			1					2				1	6	
9	W.	8	1		1	1	2	1	1				1		2								1				4	10	17
	C.	7				4	1																3	1			3	7	
10	W.	7				2	2								1								4				2	7	17
	C.	10				2	4						1	1				2					2			2	2	10	
11	W.	9					3	1	1						1			3								1	4	9	15
	C.	6				2	1											2					2	1			1	6	
12	W.	6					4	1						1				2					2			1		6	15
	C.	9				1	2	1	1					1				3	1				2	1			1	9	
13	W.	6				4	2																2				4	6	12
	C.	6					1											3					1				2	6	
14	W.	4					2										1									1	2	4	7
	C.	3				1	1											2					1					3	
15	W.	7				2	2	1	1						2												1	4	7	13
	C.	6				1	1							1				2						1			1	6	
16	W.	7			1	2	3							1					1		1						2	8	22
	C.	14				1	5	3	3				1		1	1		2					3	1			5	14	
17	W.	7				3	4	1						1									1			1	4	7	15
	C.	7			1	1	3											2		1							4	8	
18	W.	6				2	1										1	2		1			2					6	11
	C.	5				1	3	2	2				1					1						1			2	5	
19	W.	7			1		4							1		1							1				4	8	17
	C.	8	1				3							1	1			2	1								3	9	
20	W.	4	1				1								1			1									2	5	13
	C.	8					4							1	1			1		1						1	3	8	
21	W.	4					2	1	1					1				1									2	4	12
	C.	8				1	3	1	1						1			2	1				2				2	8	
22	W.	6					4												1				3				2	6	12
	C.	6				1												4									2	6	
23	W.	4				1	1							2									1	1				4	11
	C.	7					2	1	1					1	1								1				4	7	
24	W.	8				1	2	1							1		2	1	1				2				1	8	16
	C.	8				1	3						1	1				1						1		2	2	8	
25	W.	3				1	1	1										1									2	3	15
	C.	9	3			1	5	1	1								1	2	1							3	2	12	
26	W.	4			1	1	1						1										1	1			1	5	9
	C.	3	1				2											1		1							1	4	
27	W.	12				3	4						1	3	1		1	2						1		2	1	12	17
	C.	5					1	1							1			2					1				1	5	
28	W.	9	1			3	1	1	1						1			3					1	1		1	2	10	15
	C.	5				1	4	1					1					1	1								2	5	
29	W.	8	1			2	2	1	1									1					2	1		1	2	9	14
	C.	5					1						1		1		1										2	5	
30	W.	10				1	3	1	1						1			1		2			1	1		1	3	10	14
	C.	4					1	1							1				1				2					4	
Total and mean.	W.	195	4	1	4	37	63	13	9	0	0	0	5	14	13	1	6	25	7	3	2	0	26	11	1	15	66	204	410
	C.	199	5	1	1	24	69	16	9	0	0	0	7	11	12	1	2	45	8	3	1	0	25	15	0	14	55	206	

—Number of deaths occurring in hospitals and other public institutions during the year ended June 30, 189[illegible].

Hospitals, etc.	White.		Colored		Total.
	Males.	Females.	Males.	Females.	
Ohio Railroad	.....	.....	2	.....	2
ı	.....	.....	1	.....	1
eake and Ohio	1	.....	1	1	3
Creek	2	.....	3	.....	5
spital	8	11	14	14	47
pital	6	26	12	28	72
ɔspital	46	5	16	4	71
ospital	13	3	130	76	222
rial Hospital	36	25	15	15	91
lospital for the Insane	114	25	16	8	163
rinting Office	.....	1	.....	.....	1
ollege	3	.....	.....	.....	3
sitation	.....	2	.....	.....	2
tre Dame	.....	2	.....	.....	2
od Shepherd	.....	1	.....	.....	1
Aged (Little Sisters of the Poor)	14	12	3	5	34
rables	9	5	.....	.....	14
	.....	4	.....	.....	4
ıe	.....	1	.....	.....	1
ne	2	1	.....	.....	3
eopathic Hospital	8	5	2	2	17
l (United States)	1	.....	.....	.....	1
r	7	.....	10	1	18
	3	.....	5	.....	8
ɔspital	84	41	12	16	153
	.....	.....	.....	1	1
e	31	1	2	.....	34
al Hospital	3	5	1	1	10
rounds	1	.....	.....	.....	1
at Asylum	14	18	6	12	50
Orphan Asylum	.....	2	.....	.....	2
sylum Hospital	26	9	47	41	123
il	1	.....	1	.....	2
arracks	1	1	.....	.....	2
lospital for Foundlings	14	27	.....	.....	41
ity Orphan Asylum	1	1	.....	.....	2
	449	234	299	225	1,207

LE VIII.—*Deaths and average ages for the year ended June 30, 1897.*

WHITE MALES.

s.	All ages.				5 years and over.				20 years and over.				40 years and over.			
	Total deaths.	Average ages.			Total deaths.	Average ages.			Total deaths.	Average ages.			Total deaths.	Average ages.		
		Years.	Months.	Days.		Years.	Months.	Days.		Years.	Months.	Days.		Years.	Months.	Days.
.....	170	30	2	1	96	53	6	16	93	54	10	15	74	60	10	29
.....	185	40	7	8	124	60	6	29	115	55	2	27	94	60	7	25
.....	118	33	11	2	83	48	0	14	76	51	3	22	53	60	1	6
.....	167	40	1	23	134	50	0	0	124	57	3	0	92	60	4	28
....	124	35	10	17	102	43	5	8	82	51	3	1	55	61	10	27
.....	145	42	3	10	114	52	6	9	111	54	6	8	81	64	9	12
.....	148	40	10	4	114	52	6	8	109	54	2	24	83	61	6	9
.....	171	40	8	1	134	51	7	22	129	53	2	21	92	61	9	2
.....	141	41	0	25	106	54	9	18	104	55	8	10	81	63	3	27
.....	130	44	2	4	105	54	6	15	102	55	8	17	81	62	6	15
.....	126	39	10	21	99	50	7	2	91	54	0	29	66	62	9	23
.....	148	34	4	13	99	51	1	13	88	56	1	15	72	62	5	15
.....	1,773	38	8	0	1,330	51	4	28	1,224	54	2	30	922	63	6	5

TABLE VIII.—*Deaths and average ages for the year ended June 30, 1897*—Continued

WHITE FEMALES.

Months.	All ages.				5 years and over				20 years and over.				40 years and o		
	Total deaths.	Average ages.			Total deaths.	Average ages.			Total deaths.	Average ages.			Total deaths	Aver age	
		Years.	Months.	Days.		Years.	Months.	Days.		Years.	Months.	Days.		Years.	Months.
1896.															
July	164	26	10	10	90	48	0	4	78	53	7	22	58	61	1
August	149	34	7	22	98	52	9	4	89	56	5	22	65	65	
September	86	28	6	0	53	45	10	17	45	51	11	6	28	65	
October	117	37	4	3	93	45	7	25	84	50	6	16	59	57	
November	112	41	3	22	91	50	8	24	85	53	6	23	55	64	1
December	120	41	10	2	97	51	8	4	92	53	10	25	65	64	
1897.															
January	143	43	0	7	109	53	2	20	101	54	2	21	73	64	
February	141	39	10	9	113	50	0	12	100	54	1	26	72	62	1
March	139	45	10	5	112	56	3	18	103	60	0	2	90	64	
April	96	40	10	22	73	53	7	2	71	54	10	0	52	64	
May	79	45	0	4	64	53	8	23	60	56	6	0	47	63	
June	97	37	0	17	67	53	5	6	61	57	5	26	47	65	
Total	1,443	38	6	5	1,060	51	2	18	969	54	10	9	711	67	

COLORED MALES.

1896.															
July	164	16	10	24	75	37	2	1	61	42	10	23	36	54	
August	112	17	10	2	48	41	7	14	40	46	0	5	24	59	
September	96	26	7	18	59	42	10	6	49	50	0	0	35	57	
October	95	28	8	0	67	49	4	0	55	50	0	0	33	58	
November	80	28	10	4	54	42	6	24	52	43	8	14	26	60	
December	86	26	7	5	59	38	4	26	50	43	0	0	27	54	
1897.															
January	98	29	4	23	62	46	5	18	53	51	10	2	37	60	
February	94	31	8	27	63	47	0	5	53	53	0	0	42	58	
March	104	22	5	27	58	40	2	2	49	45	5	16	32	55	
April	84	31	10	0	56	47	11	0	49	52	1	7	34	62	
May	90	25	0	0	59	37	8	28	45	45	10	20	28	55	
June	108	22	0	23	57	41	1	20	43	50	6	12	30	59	
Total	1,211	25	8	0	717	41	8	21	599	47	9	9	384	57	

COLORED FEMALES.

1896.															
July	180	18	1	15	80	40	2	18	67	45	1	2	35	59	
August	119	26	5	22	63	50	0	6	58	52	6	0	41	61	
September	110	24	3	15	75	35	3	1	57	42	5	27	27	58	
October	97	26	1	27	65	38	3	13	50	45	6	7	26	62	
November	83	23	2	3	48	39	2	26	39	43	5	2	20	56	
December	76	30	10	27	53	44	0	0	42	47	2	9	24	60	
1897.															
January	103	29	0	20	69	43	0	2	61	46	7	26	38	56	1
February	122	28	7	1	79	41	7	11	64	47	10	4	34	62	
March	114	28	7	14	74	43	2	25	60	49	10	16	37	64	
April	105	28	5	21	78	38	1	3	66	42	6	11	31	57	
May	85	25	10	27	52	41	8	6	44	47	6	8	28	57	
June	116	20	4	8	58	40	0	0	42	50	0	0	31	57	
Total	1,310	25	10	4	794	41	0	17	650	46	8	3	372	59	

ages; also daily meteorological conditions and variations, etc.—Continued.

[Barometer reduced to sea level. T. indicates trace of precipitation.]

OCTOBER, 1896.

Meteorological conditions.												
Mean barometer (actual).	Mean relative humidity.	Temperature (exposed bulb).				Mean (wet bulb).	Mean dew-point.	Direction of wind.		Total movement of wind.	Rainfall.	Day of month.
		Maximum.	Minimum.	Range.	Mean.			8 a. m.	8 p. m.			
29.98	74	68	58	10	63	56	52	NW.	NW.	203	.....	1
30.04	64	65	53	12	59	52	49	NW.	W.	165	.....	2
30.10	84	65	49	16	57	52	50	N.	NE.	94	.....	3
30.17	82	63	55	8	59	55	52	N.	N.	114	T.	4
30.18	88	63	48	15	56	50	48	N.	N.	81	.....	5
30.09	82	70	44	26	57	50	48	NW.	SE.	74	.....	6
30.10	60	59	44	15	52	46	38	NW.	NW.	307	0.01	7
30.32	73	56	37	19	46	41	36	W.	NW.	140	.....	8
30.47	76	56	36	20	46	40	36	N.	NE.	129	.....	9
30.40	74	56	39	17	48	46	42	NE.	NE.	243	.....	10
30.16	79	53	48	5	50	48	44	NE.	N.	306	T.	11
30.05	90	53	47	6	50	47	46	N.	N.	256	.12	12
29.88	90	54	47	7	50	48	47	N.	W.	126	.01	13
29.80	72	57	47	10	52	47	43	NW.	NW.	219	.03	14
29.81	52	68	51	17	60	48	39	NW.	W.	243	.....	15
29.78	69	75	44	31	60	49	44	S.	N.	141	.....	16
29.88	72	62	47	15	54	47	43	NE.	NE.	128	.....	17
29.98	68	58	41	17	50	43	38	N.	NW.	229	T.	18
30.19	71	55	33	22	44	40	35	NW.	S.	122	.....	19
30.04	58	66	44	22	55	45	38	S.	S.	197	.....	20
30	46	71	45	26	58	44	32	S.	N.	199	T.	21
30.16	64	62	33	29	48	41	35	NW.	S.	86	.....	22
29.83	80	68	48	20	58	52	49	S.	SE.	177	.01	23
29.83	58	59	38	21	48	42	33	NW.	N.	255	.15	24
30.20	62	56	32	24	44	38	30	W.	S.	78	.....	25
30.20	76	65	31	34	48	42	38	NE.	E.	70	.....	26
30.26	73	72	36	36	54	44	40	E.	SE.	54	.....	27
30.32	84	72	40	32	56	50	48	NE.	S.	88	.....	28
30.30	27	76	53	23	64	58	54	S.	S.	99	.....	29
30.02	78	75	55	20	65	61	58	S.	S.	215	.01	30
29.95	66	76	52	24	64	56	51	NW.	S.	124	.....	31
30.08	72.3	63.7	44.4	19.3	54.0	47.6	43.1	NW.	S.	4,988	.34	

TABLE X.—*Daily mortality, classified by color, different diseases, violence, and*

JULY, 1896.

Day of month.	Color.	Mortality. Total deaths, less those by violence.	Deaths by violence. Accidents and negligence.	Homicides.	Suicides.	Deaths, by ages. 60 years old and over, less those by violence.	Under 5 years old, less those by violence.	Under 8 days old, less those by violence.	1 day old and under, less those by violence.	Scarlet fever.	Croup.	Diphtheria.	Diarrheal diseases.	Typhoid fever.	Typho-malarial fever.	Malarial fevers.	Phthisis pulmonalis.	Pneumonia.	Bronchitis.	Congestion of lungs.	Pleurisy.	Diseases of nervous system.	Diseases of the circulatory organs.	Rheumatism.	Diseases of digestive organs.	All other diseases.
1	W.	12				1	6					1	5				1					1	1			3
	C.	12	1				7						2				3						2		3	2
2	W.	13				1	10					1	4		1							2	1		3	1
	C.	9					5						3				2					2			1	1
3	W.	10				2	6					1	4									2				3
	C.	17	1			1	14	1					9				1					3			4	
4	W.	11				2	5	1	1				3				2					1			1	4
	C.	13	1				9	2	1					1			2					1	1		3	5
5	W.	4	1			1	1					1	1										1			
	C.	14		1		2	11						5					1	1			1			4	2
6	W.	12	2			5	5						2									1	1	1	3	4
	C.	12				1	8	2					3	1				1			1		1		1	4
7	W.	6				1	2						1				2								2	1
	C.	10	1				5						2				3	1					1			3
8	W.	12				1	6						4	1								2	1			4
	C.	9					6					1	3	1											1	3
9	W.	14				1	3					1	3				1								1	8
	C.	11				2	8	3	3				2										1		2	6
10	W.	15				5	6	1	1			2	2				1					1	2		2	5
	C.	10					7						3				1		1			1	1		3	
11	W.	15	2		1	4	6	1	1				1				2					2			3	7
	C.	5				1	1						1				1					1			1	1
12	W.	14				3	7	3	2				4				3			1	1	1				4
	C.	13	1			1	9	1					4	1			1					2				5
13	W.	12				4	5						4				1					1	3		3	
	C.	14				1	9	2	2				5				1	1				2				5
14	W.	15				2	10	1					5				2					1	2		2	3
	C.	12					8						7					1							2	2
15	W.	10	1			1	6						5										1		2	2
	C.	15				1	6	1					[illegible]					1		1		2	1		2	4
16	W.	7	2			1	3						2				1				1	2			1	
	C.	14				2	8						3				4					2			3	2
17	W.	7				2	4					1	2													4
	C.	9				3	2	1					1									1	1		2	4
18	W.	10				1	4						3				2		1			2			2	
	C.	11				1	5	1					2			1		2				1			1	4
19	W.	9				2	3						2				1					1		1	1	3
	C.	13	1	1		2	5						2	1			3					2	1		1	3
20	W.	9	1			2	6	1	1				4					1								4
	C.	14				1	8						5									1	2			6
21	W.	17				3	8	1	1			1	5	1			2					3	1			4
	C.	10				1	5	2					3			1	1		1		1					3
22	W.	7				3	2	1	1				1				1					3				2
	C.	13					6	1				1	1				4					2	1		1	3
23	W.	9				2	5	2								1	2								1	5
	C.	3					2						[illegible]				1									
24	W.	9				4	4						3				1								3	2
	C.	10				3	4	1	1				2			1	1								2	4
25	W.	5				1	4					1	2				2									
	C.	6					3						2	1				1							1	1
26	W.	12				1	4	1	1				1				2					4		1		4
	C.	15				1	8	3	1				4				5					1			3	2
27	W.	7	1			2	1															1			2	4
	C.	7			1		4	1	1				2				1	1					1			2
28	W.	16				5	7	2	2				2				1					3	2		3	5
	C.	13				3	8						5				1					3				4
29	W.	6					2						2				1					1		1		1
	C.	9				1	3										2					2	1			[illegible]
30	W.	11				3	4						2			1	2					1			3	[illegible]
	C.	7	1				4	1	1				2				1		1			1			1	
31	W.	6	1			3	2						1				1					2			1	
	C.	5				1	2									1					1	1			2	
Total and mean.	W.	322	11	0	1	69	148	15	11	0	0	10	81	2	1	2	34	1	1	1	2	38	16	4	39	9
	C.	335	7	2	1	29	190	23	10	0	0	2	89	6	0	4	39	10	4	1	3	32	15	0	44	8

meteorological conditions and variations for year ended June 30, 1896.

[Barometer reduced to sea level. T. indicates trace of precipitation.]

JULY, 1896.

Meteorological conditions.											
	Temperature (exposed bulb).						Direction of wind.				
Mean relative humidity.	Maximum.	Minimum.	Range.	Mean.	Mean (wet bulb).	Mean dew-point.	8 a. m.	8 p. m.	Total movement of wind.	Rainfall.	Day of month.
69	87	58	29	72	68	64	S.	SE.	107	.....	1
66	87	61	26	74	68	62	S.	SE.	93	.....	2
84	90	70	20	80	70	67	SW.	SW.	120	0.21	3
86	88	69	19	78	71	70	S.	SW.	172	.03	4
82	85	75	10	80	73	72	SW.	S.	126	T.	5
89	84	72	12	78	72	70	SW.	S.	140	.05	6
84	84	68	16	76	69	67	SW.	N.	150	.19	7
89	69	61	8	65	63	61	N.	NE.	201	.23	8
83	83	67	16	75	72	70	SE.	SW.	191	.75	9
90	82	68	14	75	72	72	S.	S.	128	.04	10
76	86	71	15	78	72	69	SW.	SW.	108	.....	11
69	91	69	22	80	72	70	S.	SW.	83	.....	12
66	90	73	17	82	72	69	NW.	W.	163	.....	13
81	88	75	13	82	74	72	SW.	W.	82	.02	14
86	90	74	16	82	77	76	S.	0	102	.07	15
80	83	68	15	76	66	70	NW.	NE.	113	.43	16
62	78	60	18	69	60	58	N.	N.	139	T.	17
64	81	56	25	68	64	58	0	SE.	91	.....	18
75	79	60	19	70	67	64	E.	S.	111	.....	19
76	89	71	18	80	74	72	S.	S.	214	.....	20
85	86	75	11	80	74	72	NW.	S.	98	.01	21
89	88	73	15	80	74	74	S.	S.	152	.98	22
62	83	70	13	76	67	62	NW.	NW.	208	.....	23
75	76	67	9	72	68	66	N.	S.	68	.41	24
67	80	65	15	72	64	60	NW.	0	150	.01	25
73	84	60	24	72	68	64	W.	S.	129	.....	26
78	94	70	24	82	76	74	SW.	SW.	156	.....	27
76	92	75	17	84	74	70	W.	SW.	101	.01	28
86	92	73	19	82	74	74	W.	N.	91	.24	29
62	92	72	20	82	70	66	W.	NW.	140	.01	30
60	83	64	19	74	65	59	NW.	N.	184	.....	31
76.0	85.3	68.1	17.2	76.6	70.0	68.0	SW.	S.	4,111	3.69	

TABLE X.—*Daily mortality, classified by color, different diseases, violence, and*

AUGUST, 1896.

Day of month.	Color.	Mortality. Total deaths, less those by violence.	Deaths by violence. Accidents and negligence.	Homicides.	Suicides.	Deaths, by ages. 60 years old and over, less those by violence.	Under 5 years old, less those by violence.	Under 8 days old, less those by violence.	1 day old and over, less those by violence.	Scarlet fever.	Croup.	Diphtheria.	Diarrheal diseases.	Typhoid fever.	Typho-malarial fever.	Malarial fevers.	Phthisis pulmonalis.	Pneumonia.	Bronchitis.	Congestion of lungs.	Pleurisy.	Diseases of nervous system.	Diseases of the circulatory organs.	Rheumatism.	Diseases of digestive organs.	All other diseases.	Total deaths, by color.	Total deaths.
1	W.	6				1	5						1									2				3	6	16
	C.	9			1	3	5						3							1		1	2		2		10	
2	W.	8				4	3	1	1			1												2		5	8	13
	C.	5					4	1					1				1									3	5	
3	W.	8	1			1	5	1	1				1	1								1			1	4	9	14
	C.	5					3						1				1								1	2	5	
4	W.	6	1		1		3	1	1				1			1							1		1	2	8	14
	C.	6				1	3						1	2								2				1	6	
5	W.	10				4	4	2	2				3			1	1					1			1	3	10	20
	C.	9	1				7	1	1								3					2			2	2	10	
6	W.	18				7	6	1					1				1					6	2		2	6	18	30
	C.	12				2	9						3	1			2					1			2	3	12	
7	W.	12				2	3						2				3					2			1	4	12	25
	C.	12	1			2	5						3				1					1	3			4	13	
8	W.	24				6	11	2					2	1			1					6	2		3	9	24	31
	C.	7				2	2	1					1													6	7	
9	W.	26				10	4						2	2								14	1		1	6	26	37
	C.	10	1			2	5	1					1				1					4	1		1	2	11	
10	W.	20	1	1		4	6	1					1	1			1					7	3		2	5	22	33
	C.	11				4	5	1					4		1		2						1			3	11	
11	W.	14				8	1						2			1		1				6				4	14	20
	C.	6				1	3						1				2					1				2	6	
12	W.	16	2			4	4	1	1				1				4					5				6	18	27
	C.	9				2	4	1					1									1	1		2	4	9	
13	W.	9	1			3	5	2	1													4	1			4	10	21
	C.	11					7	1					2				1					1			3	4	11	
14	W.	12			1	2	3						2				5					1	1		1	2	13	23
	C.	10				1	8						3	1			2								4		10	
15	W.	7				1	2	1	1								1								1	5	7	12
	C.	5					3	1	1				1									1				3	5	
16	W.	8				3	1						1				2					2	1			2	8	17
	C.	9				3	2						1				2						1		1	4	9	
17	W.	8				4	4						1					1				1	1		1	3	8	14
	C.	6				2	2						2									1	2			1	6	
18	W.	9				3	4						3				1					1				4	9	15
	C.	6					5					1	2				1								2		6	
19	W.	12				4	2						1				2					2			2	5	12	17
	C.	5				1	3						2			1									1	1	5	
20	W.	6				2	2						1	1			1									3	6	11
	C.	5				1	3						1			1	1									2	5	
21	W.	8	1										2	2									2		1	1	9	17
	C.	8				1	3						2				2					2				2	8	
22	W.	13				1	8						2				1					1			3	6	13	15
	C.	1		1																						1	2	
23	W.	9				1	4						1				1	1				2			1	3	9	18
	C.	8	1				6	1	1				2					1	1							4	9	
24	W.	7				1	1				1											1	1		4		7	13
	C.	6				1	2	1					1					1					1			3	6	
25	W.	7				1	4						2						1			2			1	1	7	13
	C.	6				2	2	1					1	1				1				1				2	6	
26	W.	1															1										1	5
	C.	4				1	3	1					1					1	1				1				4	
27	W.	8				3	1	1						1			2		1			1			2	1	8	15
	C.	7				1	3						2					1			1					3	7	
28	W.	6				2	3						1										1		1	3	6	13
	C.	7					5	1	1				1													6	7	
29	W.	7				4	1						1		1		1					1				3	7	13
	C.	5	1			1	2						1			1	1									2	6	
30	W.	7	2			1	4						1	1		1	2			1						1	9	18
	C.	9				1	2	2	1													2	1			6	9	
31	W.	10				1	3						1			1		1				3			1	3	10	15
	C.	5				1	2						1				1						2			1	5	
Total and mean.	W.	321	9	1	2	87	107	14	8	0	1	1	37	10	1	5	31	4	2	1	0	72	17	2	31	107	334	565
	C.	224	5	1	1	36	118	15	5	0	0	1	46	5	1	3	24	5	2	1	1	21	16	..	21	77	231	

› *daily meteorological conditions and variations, etc.*—Continued.

[Barometer reduced to sea level. T. indicates trace of precipitation.]

AUGUST, 1896.

Meteorological conditions.											
Mean relative humidity.	Temperature (exposed bulb).				Mean (wet bulb).	Mean dew-point.	Direction of wind.		Total movement of wind.	Rainfall.	Day of month.
	Maximum.	Minimum.	Range.	Mean.			8 a. m.	8. p. m.			
68	80	60	20	70	64	60	NE.	SE.	161	.....	1
86	88	70	18	79	70	69	S.	N.	171	0.03	2
67	86	69	17	78	70	66	N.	SE.	100	T.	3
76	91	70	21	80	71	70	S.	0	87	.....	4
80	96	70	26	83	76	74	NW.	W.	83	.....	5
68	98	77	21	88	76	72	S.	S.	115	.....	6
69	97	77	20	87	74	71	W.	NW.	116	.....	7
68	93	75	18	84	76	72	NW.	W.	121	.....	8
69	97	77	20	87	78	75	W.	SW.	131	.....	9
68	93	76	17	84	72	68	NW.	SW.	145	.01	10
70	94	74	20	84	75	72	W.	W.	106	T.	11
63	96	76	20	86	76	72	W.	NW.	119	.....	12
88	95	70	25	82	72	70	N.	N.	107	1.73	13
80	85	70	15	78	72	70	NW.	N.	110	.18	14
76	86	68	18	77	72	70	NE.	E.	112	.....	15
80	88	70	18	79	73	72	S.	W.	145	.....	16
64	81	65	16	73	64	59	N.	N.	181	.....	17
58	80	62	18	71	60	54	NW.	N.	113	.....	18
60	74	56	18	65	56	50	NW.	N.	173	.....	19
62	78	50	28	64	56	50	N.	SE.	88	.....	20
68	82	61	21	72	64	59	S.	SE.	165	T.	21
89	78	66	12	72	70	68	S.	NE.	93	.32	22
90	88	68	20	78	74	72	NW.	SW.	83	T.	23
90	77	60	17	68	66	66	NW.	NW.	97	.35	24
79	82	59	23	70	64	62	N.	SE.	89	.....	25
69	83	59	24	71	65	61	NE.	S.	102	.....	26
68	79	61	18	70	62	57	S.	N.	170	.....	27
62	77	53	24	65	57	52	NW.	N.	126	.....	28
68	76	54	22	65	57	52	N.	N.	109	.....	29
70	79	50	29	64	58	54	NE.	S.	87	.....	30
73	88	60	28	70	61	58	S.	N.	135	.03	31
72	86.0	65.6	20.4	75.7	67.8	64.4	NW.	N.	3,740	2.65	

TABLE X.—*Daily mortality, classified by color, different diseases, violence, and* …

SEPTEMBER, 1896.

Day of month.	Color.	Total deaths, less those by violence.	Deaths by violence: Accidents and negligence.	Deaths by violence: Homicides.	Deaths by violence: Suicides.	Deaths, by ages: 60 years old and over, less those by violence.	Deaths, by ages: Under 5 years old, less those by violence.	Deaths, by ages: Under 8 days old, less those by violence.	Deaths, by ages: 1 day old and under, less those by violence.	Scarlet fever.	Croup.	Diphtheria.	Diarrheal diseases.	Typhoid fever.	Typho-malarial fever.	Malarial fevers.	Phthisis pulmonalis.	Pneumonia.	Bronchitis.	Congestion of lungs.	Pleurisy.	Diseases of nervous system.	Diseases of the circulatory organs.	Rheumatism.	Diseases of digestive organs.	All other diseases.	Total deaths, by color.	Total deaths.
1	W.	6				1	2						2				3									1	6	11
	C.	5				1											1						3			1	5	
2	W.	3				1																1	1			1	3	8
	C.	5					2						2	1			1									1	5	
3	W.	7		1														1		1			1			4	8	17
	C.	9				2	4							1			1	1					1		1	4	9	
4	W.	9				2	3	1	1			1		2			2									4	9	16
	C.	7				1	4	1									2					1	1		1	2	7	
5	W.	6				1	3						1				1								3	1	6	11
	C.	5					1						1	1			2						1				5	
6	W.	12				3	2	1	1								2	2				1	2		1	4	12	18
	C.	6					2						1				1			1			1		2		6	
7	W.	3					1					1	1										1				3	11
	C.	7		1			5	2									1	1				2	1		1	1	8	
8	W.	3					1																			3	3	9
	C.	6				2						1		1			1					2				1	6	
9	W.	8	1		1	1	2	1	1			1		2								1				4	10	17
	C.	7				4	1															3	1			3	7	
10	W.	7				2	2							1								4				2	7	17
	C.	10				2	4					1	1				2					2			2	2	10	
11	W.	9					3	1	1					1			3								1	4	9	15
	C.	6				2	1										2					2	1			1	6	
12	W.	6					4	1					1				2					2			1		6	15
	C.	9				1	2	1	1				1				3	1				2	1			1	9	
13	W.	6				4	2															2				4	6	12
	C.	6					1										3					1				2	6	
14	W.	4					2									1									1	2	4	7
	C.	3					1	1									2					1					3	
15	W.	7				2	2	1	1					2											1	4	7	13
	C.	6				1	1						1				2						1		1	1	6	
16	W.	7			1	2	3						1					1		1					2	2	8	22
	C.	14				1	5	3	3			1		1	1		2					3	1			5	14	
17	W.	7				3	4	1					1									1		1		4	7	15
	C.	7			1	1	3										2		1							4	8	
18	W.	6				2	1									1	2		1			2					6	11
	C.	5				1	3	2	2			1					1						1			2	5	
19	W.	7			1		4						1		1							1				4	8	17
	C.	8	1				3						1	1			2	1								3	9	
20	W.	4	1				1							1			1									2	5	13
	C.	8					4						1	1			1		1						1	3	8	
21	W.	4					2	1	1				1				1									2	4	12
	C.	8				1	3	1	1					1			2	1				2				2	8	
22	W.	6					4											1				3				2	6	12
	C.	6				1											4									2	6	
23	W.	4				1	1						2									1	1				4	11
	C.	7					2	1	1				1	1								1				4	7	
24	W.	8				1	2	1						1		2	1	1				2				1	8	16
	C.	8				1	3					1	1				1						1		2	2	8	
25	W.	3				1	1	1									1									2	3	15
	C.	9	3			1	5	1	1							1	2	1							3	2	12	
26	W.	4			1	1	1					1										1	1			1	5	9
	C.	3	1				2										1		1							1	4	
27	W.	12				3	4					1	3	1		1	2						1		2	1	12	17
	C.	5					1	1						1			2					1				1	5	
28	W.	9	1			3	1	1	1					1			3					1	1		1	2	10	15
	C.	5				1	4	1				1					1	1								2	5	
29	W.	8	1			2	2	1	1							1		1				2	1		1	2	9	14
	C.	5					1					1		1		1										2	5	
30	W.	10				1	3	1	1					1			1		2			1	1		1	3	10	14
	C.	4					1	1						1				1				2					4	
Total and mean.	W.	195	4	1	4	37	63	13	9	0	0	5	14	13	1	6	25	7	3	2	0	26	11	1	15	66	204	410
	C.	199	5	1	1	24	69	16	9	0	0	7	11	12	1	2	45	8	3	1	0	25	15	0	14	55	206	

daily meteorological conditions and variations, etc.—Continued.

[Barometer reduced to sea level. T. indicates trace of precipitation.]

SEPTEMBER, 1896.

Meteorological conditions.											
Mean relative humidity.	Temperature (exposed bulb).				Mean (wet bulb).	Mean dew-point.	Direction of wind.		Total movement of wind.	Rainfall.	Day of month.
	Maximum.	Minimum.	Range.	Mean.			8 a. m.	8 p. m.			
58	77	52	25	66	54	47	N.	NW.	130	.....	1
69	78	51	27	64	60	56	SW.	SE.	142	.....	2
84	92	64	28	78	68	67	S.	W.	177	0.60	3
62	75	55	20	65	56	50	N.	E.	156	.....	4
87	68	55	13	62	62	61	SE.	S.	92	1.16	5
82	78	64	14	71	66	64	W.	NW.	133	.01	6
67	77	56	21	66	58	54	N.	N.	93	.....	7
73	77	56	21	66	59	56	NE.	N.	123	.....	8
70	81	56	25	68	60	58	NW.	N.	131	.....	9
70	90	59	31	74	68	64	NW.	S.	98	.....	10
71	91	65	26	78	69	65	SE.	S.	99	.....	11
80	81	63	18	72	66	64	NE.	SW.	58	T.	12
84	86	69	17	78	70	69	.....	NE.	107	.....	13
89	76	67	9	72	68	67	E.	S.	122	T.	14
96	77	69	8	73	69	69	SW.	NW.	84	.35	15
88	78	63	15	17	65	64	N.	S.	111	.17	16
88	84	65	19	74	70	68	S.	S.	101	.03	17
80	83	66	17	74	69	68	NE.	E.	138	.01	18
73	94	57	37	76	64	60	S.	NW.	301	.13	19
76	68	48	20	58	50	46	NW.	NW.	183	T.	20
81	70	47	23	58	56	54	S.	S.	125	.....	21
76	70	54	16	62	56	52	W.	NW.	178	.01	22
66	60	44	16	52	44	38	NW.	NW.	257	.....	23
76	71	42	29	56	50	46	W.	SW.	96	.....	24
76	75	42	33	58	54	51	.....	SE.	132	.....	25
82	77	54	23	66	59	57	S.	S.	101	.....	26
84	79	56	23	68	62	61	S.	SE.	102	T.	27
91	78	60	18	69	66	66	N.	NE.	104	.03	28
94	78	66	12	72	70	70	E.	NE.	391	.52	29
66	73	59	14	66	58	54	W.	SW.	256	.16	30
78.2	78.1	57.6	20.5	67.7	61.6	58.9	S.	S.	{4,301 {143.3	3.18 10.6	

TABLE X.—*Daily mortality, classified by color, different diseases, violence, and*

OCTOBER, 1896.

Day of Month.	Color.	Mortality.																															
		Total deaths, less those by violence.	Deaths by violence.			Deaths, by ages.				Scarlet fever.	Croup.	Diphtheria.	Diarrheal diseases.	Typhoid fever.	Typho-malarial fever.	Malarial fevers.	Phthisis pulmonalis.	Pneumonia.	Bronchitis.	Congestion of lungs.	Pleurisy.	Diseases of nervous system.	Diseases of the circulatory organs.	Rheumatism.	Diseases of digestive organs.	All other diseases.	Total deaths, by color.	Total deaths.						
			Accidents and negligence.	Homicides.	Suicides.	60 years old and over, less those by violence.	Under 5 years old, less those by violence.	Under 8 days old, less those by violence.	1 day old and under, less those by violence.																									
1	W.	4				1								2								1				1	4	10					
	C.	5	1				2						2					1					1		1	6							
2	W.	6	1			3	1						1				1					2			1	7	14						
	C.	7				2	3						1					1				2				7							
3	W.	10				1	1	1									3	2				2	1		2	10	14						
	C.	3	1				1						1				1					1				4							
4	W.	13				4	3	1	1					2		1	1					1	2		6	12	26						
	C.	7				1	1											2		1	1	1	1		2	7							
5	W.	6				2	3											1	1			1			3	6	17						
	C.	11				3	3						1				2	1					2	2	3	11							
6	W.	4				2											2					1			1	4	18						
	C.	8				2	3	1				1					1		1				1	1	3	8							
7	W.	10				3	4	1	1		1		1	2								2		1	3	10	13						
	C.	3				1	1																	1	2	3							
8	W.	6				3								1								1	1		3	6	12						
	C.	6				1	3													1		2	2		1	6							
9	W.	10	2			2	2						1	1		2						1			5	12	19						
	C.	7				1	3	1				1					1					1		2	2	7							
10	W.	7			1	1								2			3					1			1	8	15						
	C.	7				1								1			3								3	7							
11	W.	13				5	3	1	1			1	1				3		1				1		4	13	21						
	C.	8					6	4	4									2								6	8						
12	W.	8	1			1	2	1						1			1					2	1		3	9	17						
	C.	8				3	2											3				1			1	8							
13	W.	5				1	2	1	1				1				2									5	11						
	C.	6					2							1			2	1		1				1		6							
14	W.	11				2	1							1					1			2			7	11	22						
	C.	11					2						1	1	2		2					1			1	3	11						
15	W.	8				1	5	1					1	1	1		2					1			2	8	13						
	C.	5					3	1	1				1					1				1	1		1	5							
16	W.	10				1	2							2				1				5			1	10	14						
	C.	3	1			1	2	1														1	1			4							
17	W.	5				1	1						1				1					1	1		1	5	19						
	C.	14				1	5	1						2			1					1	2		3	14							
18	W.	6					3										2					2	2			6	10						
	C.	4				1	1							1			1									4							
19	W.	16	1		1	5	2					1					2	1	1			1	1	1	5	18	21						
	C.	3					2	2	1																2	3							
20	W.	7				2	1	1	1			1					1					2				7	17						
	C.	5				1											2					1	1		1	5							
21	W.	12				2	5	1	1		1	2		1				1					2	2	3	12	16						
	C.	4				1	1										1	1				1			1	4							
22	W.	10				4											2					1	4		3	10	16						
	C.	6				2										2	2	1							1	6							
23	W.	11	1			5	1						1				2					3	1		2	2	29						
	C.	8					3	2	1								3	2				1				8							
24	W.	9	1				2	1					3		1			1				2				10	16						
	C.	5	1			1	2	1	1									1						1		6							
25	W.	13				3	1										4	1				2	1		2	13	22						
	C.	8	1			1	2						1				3	1				1			1	9							
26	W.	12				3	3	1	1							1			1			2	1		1	12	17						
	C.	4	1			1											1						1		2	5							
27	W.	9			1	1							1				3		1		1	3	1		1	10	16						
	C.	6				2	1						1				2								3	6							
28	W.	12				1	4	2	1				1	1			1					1			3	12	16						
	C.	4				1	1										1	1							2	4							
29	W.	11				4	3						1				2	2		1		1	1		3	11	14						
	C.	3					1										1					1		1		3							
30	W.	5				1	1						1			1	1					1			1	5	6						
	C.	1															1									1							
31	W.	5				2																3	1		1	5	11						
	C.	6															1					1	1		3	6							
Total and mean.	W.	274	7	0	3	69	57	13	8	0	2	11	10	18	0	5	39	10	5	2	0	47	22	2	17	84	284	476					
	C.	186	6	0	0	28	56	14	8	0	0	7	5	7	0	2	32	19	1	2	1	18	14	3	16	39	192						

daily meteorological conditions and variations, etc.—Continued.

[Barometer reduced to sea level. T. indicates trace of precipitation.]

OCTOBER, 1896.

Meteorological conditions.											
Mean relative humidity.	Temperature (exposed bulb).				Mean (wet bulb).	Mean dew-point.	Direction of wind.		Total movement of wind.	Rainfall.	Day of month.
	Maximum.	Minimum.	Range.	Mean.			8 a. m.	8 p. m.			
74	68	58	10	63	56	52	NW.	NW.	203	.....	1
64	65	53	12	59	52	49	NW.	W.	165	.....	2
84	65	49	16	57	52	50	N.	NE.	94	.....	3
82	63	55	8	59	55	52	N.	N.	114	T.	4
88	63	48	15	56	50	48	N.	N.	81	.....	5
82	70	44	26	57	50	48	NW.	SE.	74	.....	6
60	59	44	15	52	46	38	NW.	NW.	307	0.01	7
73	56	37	19	46	41	36	W.	NW.	140	.....	8
76	56	36	20	46	40	36	N.	NE.	129	.....	9
74	56	39	17	48	46	42	NE.	NE.	243	.....	10
79	53	48	5	50	48	44	NE.	N.	306	T.	11
90	53	47	6	50	47	46	N.	N.	256	.12	12
90	54	47	7	50	48	47	N.	W.	126	.01	13
72	57	47	10	52	47	43	NW.	NW.	219	.03	14
52	68	51	17	60	48	39	NW.	W.	243	.....	15
69	75	44	31	60	49	44	S.	N.	141	.....	16
72	62	47	15	54	47	43	NE.	NE.	128	.....	17
68	58	41	17	50	43	38	N.	NW.	229	T.	18
71	55	33	22	44	40	35	NW.	S.	122	.....	19
58	66	44	22	55	45	38	S.	S.	197	.....	20
46	71	45	26	58	44	32	S.	N.	199	T.	21
64	62	33	29	48	41	35	NW.	S.	86	.....	22
80	68	48	20	58	52	49	S.	SE.	177	.01	23
58	59	38	21	48	42	33	NW.	N.	255	.15	24
62	56	32	24	44	38	30	W.	S.	78	.....	25
76	65	31	34	48	42	38	NE.	E.	70	.....	26
73	72	36	36	54	44	40	E.	SE.	54	.....	27
84	72	40	32	56	50	48	NE.	S.	88	.....	28
27	76	53	23	64	58	54	S.	S.	99	.....	29
78	75	55	20	65	61	58	S.	S.	215	.01	30
66	76	52	24	64	56	51	NW.	S.	124	.....	31
72.3	63.7	44.4	19.3	54.0	47.6	43.1	NW.	S.	4,988	.34	

TABLE X.—*Daily mortality, classified by color, different diseases, violence, and*

NOVEMBER, 1896.

Day of month.	Color.	Mortality.																														
		Total deaths, less those by violence.	Deaths by violence.			Deaths, by ages.				Scarlet fever.	Croup.	Diphtheria.	Diarrheal diseases.	Typhoid fever.	Typho-malarial fever.	Malarial fever.	Phthisis pulmonalis.	Pneumonia.	Bronchitis.	Congestion of lungs.	Pleurisy.	Diseases of nervous system.	Diseases of the circulatory organs.	Rheumatism.	Diseases of digestive organs.	All other diseases.	Total deaths, by color.	Total deaths.
			Accidents and negligence.	Homicides.	Suicides.	60 years old and over, less those by violence.	Under 5 years old, less those by violence.	Under 8 days old, less those by violence.	1 day old and under, less those by violence.																				
1	W.	8	1	....	....	3	1	....	....	....	....	....	....	....	....	....	....	2	....	....	....	....	1	1	..	4	9	11
	C.	2	....	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	..	1	2	
2	W.	8	....	....	....	1	3	1	....	....	....	1	..	1	....	....	....	....	....	....	....	2	....	....	..	4	8	13
	C.	5	....	....	....	3	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	..	2	2	5	
3	W.	10	....	....	....	2	2	2	....	....	....	....	....	1	....	....	1	..	1	....	....	2	....	....	1	4	10	12
	C.	2	....	....	....	2	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	..	1	2	
4	W.	6	1	....	....	2	1	....	....	....	....	....	....	1	....	....	1	1	....	....	....	1	....	....	..	2	7	12
	C.	4	1	....	....	....	3	....	....	....	....	1	....	1	....	....	....	....	1	....	....	1	....	....	..	....	5	
5	W.	8	....	....	....	1	3	1	....	1	....	....	1	....	....	....	1	....	....	....	....	1	1	..	1	2	8	18
	C.	10	....	....	....	....	4	2	1	....	....	....	....	....	....	....	1	2	....	....	....	1	2	....	..	4	10	
6	W.	7	....	....	....	2	....	....	....	....	....	....	....	....	....	....	1	1	....	....	....	1	2	....	..	2	7	10
	C.	3	....	....	....	....	1	....	....	....	....	....	1	....	....	....	....	1	....	....	....	....	....	....	..	1	3	
7	W.	9	....	....	....	2	3	....	....	....	....	1	....	....	....	1	1	1	....	....	....	....	2	....	..	2	9	12
	C.	3	....	....	....	1	1	1	1	....	....	....	1	....	....	....	....	....	....	....	....	....	1	....	..	1	3	
8	W.	8	....	....	....	3	....	....	....	....	....	1	....	....	....	....	....	2	....	....	....	1	....	....	..	3	8	10
	C.	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	..	....	2	
9	W.	13	1	....	....	6	4	1	....	....	....	1	..	1	....	....	4	1	....	....	....	1	....	....	..	5	14	19
	C.	5	....	....	....	1	2	....	....	....	....	1	....	....	....	....	1	1	....	....	....	....	....	....	..	1	5	
10	W.	11	1	....	....	3	4	1	1	....	....	1	....	....	....	....	1	....	....	....	1	1	....	....	..	7	12	21
	C.	9	....	....	....	1	6	1	1	....	....	....	....	....	....	....	1	....	....	....	....	2	2	....	..	4	9	
11	W.	8	....	....	1	1	1	....	....	....	....	....	....	1	....	....	....	1	....	....	....	1	2	....	..	1	2	9	16
	C.	7	....	....	....	....	1	1	....	....	....	....	....	....	....	....	2	....	....	....	....	....	2	....	..	1	2		
12	W.	3	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	....	..	1	3	11
	C.	8	....	....	....	1	4	....	....	....	....	....	....	....	....	....	....	2	1	....	....	....	3	....	..	2	8	
13	W.	11	....	....	....	4	2	....	....	....	....	1	..	1	....	....	2	1	1	....	....	1	1	....	..	1	4	11	16
	C.	5	....	....	....	....	2	....	....	....	....	....	....	1	....	....	2	....	....	....	....	1	....	....	..	1	5		
14	W.	6	....	....	....	2	2	1	....	....	....	....	....	....	....	....	1	....	....	....	....	1	....	....	..	2	6	17
	C.	9	1	....	1	1	4	1	1	....	....	....	....	1	....	....	2	....	....	....	....	1	....	....	..	5	11	
15	W.	7	1	....	....	4	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	1	....	1	1	2	8	12
	C.	5	....	....	....	2	2	1	1	....	....	....	....	....	....	....	....	1	....	....	....	1	1	....	..	2	5	
16	W.	5	....	....	....	1	1	1	....	....	....	....	....	....	....	....	3	1	....	....	....	....	....	....	..	1	5	15
	C.	9	....	1	....	2	3	1	....	....	....	....	....	....	....	....	3	2	....	....	....	1	....	....	..	3	10	
17	W.	3	....	....	....	1	1	....	....	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	..	1	3	11
	C.	8	....	....	....	....	3	1	1	....	....	....	....	....	....	....	2	1	....	....	....	1	1	....	..	3	8	
18	W.	9	....	....	....	2	2	....	....	....	....	....	1	1	....	....	3	....	....	....	....	....	2	....	..	2	9	12
	C.	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	1	1	....	..	....	3	
19	W.	6	....	....	....	2	1	....	....	....	....	....	....	....	....	....	3	....	....	....	....	2	....	....	..	1	6	9
	C.	3	....	....	....	....	1	1	....	....	....	....	....	1	....	....	....	....	....	....	....	1	1	....	..	....	3	
20	W.	6	....	....	....	3	1	....	....	....	....	....	....	....	....	....	1	1	....	....	....	1	1	....	..	2	6	11
	C.	5	....	....	....	2	....	....	....	....	....	....	....	1	....	....	1	1	....	....	....	2	....	....	..	....	5	
21	W.	7	1	....	1	3	1	1	1	....	....	....	....	....	....	1	1	....	....	....	....	1	1	....	..	1	2	9	14
	C.	5	....	....	....	....	2	....	....	....	....	....	....	....	....	....	....	2	....	....	....	1	....	....	..	2	5	
22	W.	5	....	....	1	4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	..	1	3	6	8
	C.	2	....	....	....	....	1	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	..	1	2	
23	W.	11	....	....	....	2	....	....	....	....	....	....	....	1	....	....	1	1	....	....	....	1	2	....	..	5	11	19
	C.	8	....	....	....	1	1	....	....	....	....	....	....	....	....	....	1	1	....	....	....	2	1	....	..	3	8	
24	W.	3	....	....	1	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	..	2	4	8
	C.	4	....	....	....	....	2	1	....	....	....	....	1	....	....	....	1	....	....	....	....	1	....	....	..	1	4	
25	W.	6	1	....	....	2	....	....	....	....	....	....	....	....	....	....	....	2	....	....	....	2	....	....	..	2	7	12
	C.	5	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....	..	3	5	
26	W.	6	....	....	....	1	2	....	....	....	....	....	....	....	....	....	1	..	1	....	....	1	1	....	..	1	6	12
	C.	6	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	2	....	....	....	....	....	....	..	4	6	
27	W.	9	1	....	....	4	1	1	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	..	1	6	10	15
	C.	5	....	....	....	....	2	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	1	....	..	3	5	
28	W.	7	....	....	....	3	....	....	....	....	....	....	....	....	....	....	....	3	....	....	....	1	....	....	..	1	2	15
	C.	8	....	....	....	2	2	1	....	....	....	....	....	1	....	....	1	....	....	1	....	....	....	....	..	2	8	
29	W.	7	....	....	....	....	2	1	....	....	....	....	....	....	....	....	2	2	....	1	....	....	....	....	..	....	2	9
	C.	2	....	....	....	....	1	1	....	....	....	....	....	1	....	....	....	....	1	....	....	....	....	....	..	....	2	
30	W.	10	....	....	1	3	4	....	....	....	....	1	....	....	....	....	1	1	1	....	....	....	2	....	..	1	3	11	18
	C.	7	....	....	....	1	5	2	....	....	....	....	....	....	....	....	1	1	....	2	....	1	1	....	..	1	....		
Total and mean.	W.	223	8	0	5	70	42	11	2	1	0	7	3	10	0	2	28	21	5	1	1	25	21	2	17	79	236	380
	C.	158	3	1	1	19	59	16	6	0	1	2	1	8	0	0	22	19	3	3	0	21	18	0	11	49	163	

daily meteorological conditions and variations, etc.—Continued.

[Barometer reduced to sea level. T. indicates trace of precipitation.]

NOVEMBER, 1896.

Meteorological conditions.											
Mean relative humidity.	Temperature (exposed bulb).				Mean (wet bulb).	Mean dew-point.	Direction of wind.		Total movement of wind.	Rainfall.	Day of month.
	Maximum.	Minimum.	Range.	Mean.			8 a. m.	8 p. m.			
66	62	47	15	54	47	42	SW.	S.	63	T.	1
66	73	38	35	56	47	42	S.	S.	67	.....	2
67	70	46	24	58	48	43	0	S.	105	.....	3
86	69	52	17	60	58	56	E.	SE.	151	0.01	4
82	72	52	20	62	62	59	S.	NW.	330	.58	5
58	61	44	17	52	44	36	W.	SW.	225	T.	6
72	68	37	31	52	44	38	SW.	S.	132	.....	7
74	55	36	19	46	40	35	N.	NW.	190	.36	8
73	44	33	11	38	32	27	NW.	N.	177	.....	9
68	52	29	23	40	36	30	N.	SE.	100	.....	10
92	62	40	22	51	53	53	S.	NW.	172	.02	11
92	58	46	12	52	50	50	N.	NW.	123	.06	12
69	50	34	16	42	34	28	N.	NW.	294	T.	13
66	44	32	12	38	30	25	NW.	W.	206	.....	14
54	62	34	28	48	38	29	S.	SW.	159	.....	15
60	72	37	35	54	44	36	S.	S.	94	.....	16
72	77	39	38	58	48	44	0	S.	62	.....	17
66	76	48	28	62	52	46	S.	S.	78	.03	18
68	69	46	23	58	46	40	S.	N.	164	T.	19
70	46	36	17	41	36	30	N.	NE.	158	.01	20
92	48	38	10	43	41	40	E.	S.	130	.09	21
62	52	37	15	44	39	32	N.	NE.	221	.02	22
72	52	26	26	39	36	31	NE.	S.	107	.....	23
80	68	46	22	57	50	48	S.	NE.	105	.....	24
84	69	52	17	60	53	52	E.	S.	99	.....	25
86	72	48	24	60	56	54	S.	S.	146	.....	26
80	75	60	15	68	90	58	S.	S.	274	.....	27
93	70	45	25	58	57	57	S.	N.	272	.24	28
88	45	32	13	38	36	32	N.	NW.	224	.71	29
74	32	26	6	30	26	22	N.	N.	181	.41	30
74.4	60.8	40.5	20.3	50.6	44.8	40.4	S.	S.	4,818	2.54	

TABLE X.—*Daily mortality, classified by color, different diseases,* violen

DECEMBER, 1896.

Day of month.	Color.	Mortality.																												
		Total deaths by color.	Deaths by violence.			Deaths, by ages.																								
			Accidents and negligence.	Homicides.	Suicides.	60 years old and over; less those by violence.	5 years old and under, less those by violence.	Under 8 days old, less those by violence.	1 day old and under; less those by violence.	Scarlet fever	Croup.	Diphtheria.	Diarrheal diseases.	Typhoid fever.	Typho-malarial fever.	Malarial fevers.	Phthisis pulmonalis.	Pneumonia.	Bronchitis.	Congestion of the lungs.	Pleurisy.	Diseases of nervous system.	Diseases of the circulatory organs.	Rheumatism.	Diseases of digestive organs.	All other diseases
1	W.	8	....	....	1	4	1	....	....	....	....	....	....	1	....	....	1	1	....	....	2	....	....	1	2
	C.	8	1	....	....	4	1	....	....	....	....	....	....	....	....	2	....	....	....	....	1	....	....	2	3
2	W.	8	....	....	....	3	2	....	....	....	....	1	....	1	....	....	1	....	....	....	....	....	2	....	3
	C.	8	....	....	....	1	3	1	....	....	....	....	....	1	....	2	1	....	....	....	1	....	....	....	3
3	W.	4	....	....	....	1	1	....	....	....	....	....	....	....	....	2	1	....	....	....	....	....	....	1	....
	C.	5	....	....	....	....	....	....	....	....	....	....	....	....	2	1	....	....	....	....	1	....	....	....	1
4	W.	6	1	....	....	1	2	1	1	....	....	....	....	....	....	1	....	....	....	....	3	....	....	....	2
	C.	4	....	1	....	....	3	2	....	....	....	....	....	....	....	1	....	....	....	....	1	....	....	....	2
5	W.	7	1	....	....	5	....	....	....	....	....	....	....	....	....	1	....	....	....	....	2	1	....	1	2
	C.	4	....	....	....	....	1	1	....	....	....	....	....	....	....	1	1	....	....	....	1	....	....	....	1
6	W.	3	2	....	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	2
	C.	6	....	....	....	1	2	....	....	....	....	....	....	....	....	....	....	1	....	....	1	1	....	....	3
7	W.	7	....	....	....	3	4	....	....	....	....	....	....	....	....	....	1	....	....	....	3	....	....	....	3
	C.	2	....	....	....	....	1	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1
8	W.	8	1	....	....	2	3	....	....	....	....	1	....	....	....	1	1	....	2	....	1	....	....	....	1
	C.	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....
9	W.	9	....	....	....	4	3	1	1	....	....	....	....	....	....	1	2	....	....	....	1	....	....	1	4
	C.	8	....	....	....	....	3	....	....	....	....	....	....	....	....	2	1	2	....	....	....	....	....	2	1
10	W.	6	1	....	....	2	1	....	....	....	....	....	1	1	....	....	....	....	....	....	1	1	....	....	2
	C.	3	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	....	....	....	....	1	....	....	....
11	W.	6	1	....	....	....	1	....	....	....	....	....	1	1	....	1	....	....	....	....	....	1	1	1	....
	C.	3	....	....	....	....	3	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	1
12	W.	5	2	....	....	....	....	....	....	....	....	1	....	....	....	2	1	....	....	....	....	....	....	....	1
	C.	6	....	....	....	1	1	....	....	....	....	....	....	1	....	1	....	....	....	....	1	....	....	1	2
13	W.	9	....	....	1	2	1	....	....	....	....	....	....	....	....	2	....	1	....	....	1	....	....	2	3
	C.	2	....	....	....	....	2	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1
14	W.	10	....	....	....	3	1	....	....	....	....	....	....	1	....	1	1	....	....	....	2	3	....	....	1
	C.	5	1	....	....	1	1	....	....	....	....	....	1	....	....	1	1	....	....	....	....	....	....	....	2
15	W.	7	1	....	....	3	1	1	1	....	....	....	....	....	....	1	1	....	....	1	....	....	....	....	4
	C.	6	1	....	....	1	1	....	....	....	....	....	....	....	....	2	3	....	....	....	1	....	....	....	....
16	W.	9	....	....	1	3	1	....	....	....	....	....	....	1	....	2	2	....	....	....	....	1	....	1	2
	C.	5	....	....	....	....	1	....	....	....	....	....	....	....	....	3	1	1	....	....	....	....	....	....	....
17	W.	12	....	....	....	4	4	1	....	....	....	1	....	....	....	1	....	....	....	....	4	1	....	4	1
	C.	4	1	....	....	1	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	1	....	1	1
18	W.	4	....	....	....	2	1	....	....	....	....	....	....	....	....	1	1	....	....	....	2	....	....	....	....
	C.	8	....	....	....	....	2	....	....	....	....	....	....	....	....	3	1	1	....	....	....	2	....	1	....
19	W.	3	....	....	....	2	1	....	....	....	....	1	....	....	....	....	1	....	....	....	1	....	....	....	....
	C.	5	....	....	....	....	1	....	....	....	....	....	....	....	....	4	1	....	....	....	....	....	....	....	....
20	W.	11	....	....	1	5	4	1	....	....	....	....	....	....	....	2	2	....	....	....	2	....	....	5	1
	C.	3	....	....	....	1	1	....	....	....	....	....	....	....	....	1	1	1	....	....	....	....	....	....	....
21	W.	7	....	....	....	2	1	....	....	....	....	....	....	....	....	2	1	1	....	....	....	1	....	2	....
	C.	2	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1	....
22	W.	12	....	....	....	6	1	....	....	....	....	....	....	....	....	....	1	....	....	....	2	2	....	1	6
	C.	2	....	....	....	....	1	....	....	....	....	....	....	....	....	1	1	....	....	....	....	....	....	....	....
23	W.	12	....	....	....	5	4	1	....	....	....	1	....	....	....	....	1	....	....	....	1	2	....	1	6
	C.	8	....	....	....	1	....	....	....	....	....	....	....	....	....	2	2	....	....	....	1	1	....	....	2
24	W.	8	....	....	....	4	2	1	....	....	....	....	....	1	....	1	1	....	....	....	....	2	....	....	3
	C.	6	1	....	....	....	3	....	....	....	....	1	....	....	....	1	....	....	1	....	1	1	....	....	1
25	W.	8	2	....	....	2	3	....	....	....	....	....	....	....	....	1	....	1	....	....	3	....	....	....	3
	C.	5	....	....	....	2	3	1	1	....	....	....	....	....	....	....	....	....	1	....	1	....	....	....	3
26	W.	13	2	....	1	2	3	1	1	....	....	3	....	....	....	1	2	....	....	....	3	....	....	....	4
	C.	10	....	....	....	....	3	1	1	....	....	....	....	....	1	2	1	....	....	....	1	1	....	....	4
27	W.	6	....	....	....	1	1	1	....	....	....	....	....	1	....	1	....	....	....	....	1	1	....	1	1
	C.	7	....	....	....	4	....	....	....	....	....	....	....	....	....	1	....	....	....	....	1	....	....	....	5
28	W.	10	....	....	....	5	3	1	....	....	....	1	....	1	....	....	....	1	....	....	3	1	....	1	2
	C.	6	....	....	....	....	3	....	....	....	....	1	....	....	....	2	....	....	....	....	....	....	....	....	3
29	W.	8	....	....	....	4	....	....	....	....	....	....	....	1	....	1	....	....	1	....	1	2	....	....	2
	C.	2	....	....	....	....	1	....	....	....	....	....	....	....	....	1	....	....	....	....	1	....	....	....	....
30	W.	8	2	....	....	1	2	....	....	....	....	1	....	1	....	1	....	....	....	....	1	....	....	3	....
	C.	8	....	....	....	2	5	1	1	....	....	....	....	....	....	2	1	....	1	....	....	....	....	4	....
31	W.	11	....	....	....	2	1	....	....	....	....	....	1	....	....	1	2	....	....	....	....	2	....	5	1
	C.	3	....	....	....	....	1	....	....	....	....	....	....	....	....	1	1	....	....	....	....	....	....	1	1
Total and mean.	W.	245	16	0	5	84	53	10	4	0	0	11	3	12	0	3	27	24	6	3	1	40	23	0	12	7	2
	C.	155	6	1	0	21	48	7	3	0	0	2	1	4	0	1	40	20	6	3	0	17	8	0	8	4	5

o daily meteorological conditions and variations, etc.—Continued.

[Barometer reduced to sea level. T. indicates trace of precipitation.]

DECEMBER, 1896.

Meteorological conditions.											
Mean relative humidity.	Temperature (exposed bulb).				Mean (wet bulb).	Mean dew-point.	Direction of wind.		Total movement of wind.	Rainfall.	Day of month.
	Maximum.	Minimum.	Range.	Mean.			8 a. m.	8 p. m.			
61	30	18	12	24	20	12	NW.	N.	142	.....	1
60	25	23	2	24	20	12	NE.	NE.	255	.....	2
62	30	19	11	24	20	14	N.	N.	207	.....	3
68	36	15	21	26	24	18	N.	S.	90	.....	4
68	55	21	34	38	30	24	S.	S.	103	.....	5
64	59	34	25	46	37	30	S.	SE.	67	.....	6
72	66	31	35	48	40	36	0	N.	57	.....	7
80	57	42	15	50	44	41	N.	E.	131	T.	8
44	58	42	16	50	41	29	NW.	SW.	308	T.	9
56	61	41	20	51	40	32	SW.	S.	120	.....	10
63	51	33	18	42	38	31	NW.	N.	244	.....	11
80	51	30	21	40	38	34	SW.	S.	100	.....	12
68	60	44	16	52	46	40	S.	S.	103	.....	13
68	53	40	13	46	42	34	NE.	NE.	152	.....	14
83	40	29	11	34	32	29	NE.	N.	339	0.12	15
46	42	28	14	35	30	18	N.	NW.	299	.06	16
56	45	29	16	37	28	20	NW.	NW.	166	.....	17
76	42	29	13	36	34	30	SE.	S.	156	T.	18
58	36	31	5	34	27	20	N.	W.	284	.....	19
68	38	26	12	32	27	22	0	N.	71	.....	20
71	38	24	14	31	28	23	NW.	NW.	105	T.	21
83	38	24	14	31	29	26	W.	S.	200	.08	22
64	39	19	20	29	28	22	NW.	N.	315	.01	23
56	25	14	11	20	15	6	NW.	NW.	313	.....	24
65	30	18	12	24	18	11	NW.	W.	152	.....	25
72	36	23	13	30	26	21	S.	W.	91	.....	26
54	35	19	16	27	26	16	N.	E.	156	.....	27
78	37	12	25	24	19	14	NE.	S.	84	.....	28
78	43	16	27	30	26	22	S.	S.	53	.....	29
81	55	32	23	44	37	34	W.	SW.	42	.03	30
89	56	29	27	42	34	33	SW.	N.	80	.....	31
67.5	44.1	26.9	17.2	35.5	30.5	24.3	NW.	S.	4,985	.30	

TABLE X.—*Daily mortality, classified by color, different diseases, violence, and*

JANUARY, 1897.

Day of month.	Color.	Mortality. Total deaths, less those by violence.	Deaths by violence. Accidents and negligence.	Homicides.	Suicides.	Deaths, by ages. 60 years old and over, less those by violence.	Under 5 years old, less those by violence.	Under 8 days old, less those by violence.	1 day old and under, less those by violence.	Scarlet fever.	Croup.	Diphtheria.	Diarrheal diseases.	Typhoid fever.	Typho-malarial fever.	Malarial fevers.	Phthisis pulmonalis.	Pneumonia.	Bronchitis.	Congestion of lungs.	Pleurisy.	Diseases of nervous system.	Diseases of the circulatory organs.	Rheumatism.	Diseases of digestive organs.	All other diseases.	Total deaths, by color.	Total deaths.
1	W.	7	....	....	....	3	1	....	....	....	....	....	....	1	....	....	2	1	....	....	....	....	2	....	....	1	7	8
	C.	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	1	1	
2	W.	7	1	....	....	4	....	....	....	....	....	....	....	....	....	....	3	2	1	....	....	....	1	....	....	....	7	15
	C.	6	1	....	....	1	1	....	....	....	....	....	....	....	....	....	3	1	....	1	....	1	....	....	....	....	8	
3	W.	13	....	....	1	3	4	....	....	....	....	....	....	1	....	....	1	1	....	1	....	....	1	....	2	6	14	27
	C.	8	....	....	....	2	2	....	....	....	....	....	....	1	....	....	4	2	....	....	....	....	....	....	....	1	13	
4	W.	8	1	....	....	....	3	1	....	....	....	....	1	....	....	....	1	....	....	....	....	2	1	1	....	2	9	17
	C.	8	....	....	....	....	5	....	....	....	....	....	....	....	....	....	1	2	....	1	....	2	1	....	....	1	8	
5	W.	15	1	....	....	6	4	2	....	....	....	....	1	....	1	1	1	2	....	....	....	3	1	....	....	5	16	24
	C.	5	....	....	....	1	2	1	....	....	....	....	....	....	....	....	2	....	....	....	....	1	....	....	....	2	5	
6	W.	6	....	....	....	1	1	....	....	....	....	....	1	....	1	....	1	....	....	....	....	1	....	....	....	2	6	9
	C.	2	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	1	3	
7	W.	4	....	....	....	2	1	1	....	....	....	....	....	....	....	....	1	1	....	....	....	....	....	....	....	2	4	11
	C.	6	1	....	....	1	1	....	....	....	....	....	1	....	....	....	....	1	....	....	....	2	....	....	....	2	7	
8	W.	10	....	....	....	3	4	1	....	....	....	....	1	....	....	....	3	2	....	....	....	1	....	....	....	3	10	14
	C.	4	....	....	....	....	2	....	....	....	....	....	....	....	....	....	1	1	1	....	....	....	....	....	....	1	4	
9	W.	11	....	....	....	4	4	1	1	....	....	....	....	....	....	....	1	2	1	1	....	3	....	....	....	3	11	17
	C.	6	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	2	1	....	....	1	6	
10	W.	9	1	....	....	6	1	....	....	....	....	....	....	....	....	....	1	2	....	....	....	1	2	....	2	1	10	13
	C.	3	....	....	....	2	1	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	1	....	1	....	3	
11	W.	14	....	....	....	5	1	1	1	....	....	....	....	....	....	....	1	2	....	....	....	....	3	....	1	7	14	20
	C.	6	....	....	....	1	3	1	....	....	....	....	....	....	....	....	2	1	....	....	....	....	....	1	....	2	6	
12	W.	7	....	....	1	2	1	....	....	....	....	....	1	....	....	....	1	2	....	....	....	1	....	....	....	2	7	15
	C.	7	....	....	....	1	....	....	....	....	....	....	....	....	....	....	2	1	....	....	....	1	....	1	....	2	8	
13	W.	5	....	....	....	2	1	....	....	....	....	....	....	1	....	....	....	....	2	....	....	....	....	....	....	2	5	13
	C.	8	....	....	....	....	5	3	2	....	....	....	....	....	....	....	1	1	....	....	....	1	1	....	....	4	8	
14	W.	4	1	....	....	....	1	....	....	....	....	....	1	....	....	....	....	1	....	....	....	1	....	....	....	1	5	13
	C.	8	....	....	....	4	3	....	....	....	....	....	....	....	....	....	2	1	1	....	....	1	1	....	....	2	8	
15	W.	6	....	....	....	4	....	....	....	....	....	....	....	1	....	....	1	....	....	....	....	....	....	....	1	3	6	12
	C.	7	....	....	....	....	4	1	1	....	....	....	....	....	....	....	2	....	1	1	....	2	....	....	....	1	7	
16	W.	9	....	....	....	2	2	....	....	....	....	....	....	....	....	....	2	1	....	....	....	1	....	....	....	5	9	18
	C.	13	....	....	....	1	6	....	....	....	....	....	....	....	....	....	6	....	....	....	....	2	1	....	....	4	13	
17	W.	9	....	....	....	4	3	....	....	....	....	....	....	....	....	....	1	2	1	....	....	....	1	....	1	3	9	16
	C.	7	....	....	....	1	3	1	1	....	....	....	....	....	....	....	1	....	....	....	....	1	1	....	1	3	7	
18	W.	13	....	....	....	3	4	....	....	....	....	....	....	....	....	....	....	5	2	....	....	4	2	....	....	....	13	19
	C.	6	....	....	....	2	3	1	1	....	....	....	....	....	....	....	....	....	1	....	....	1	....	....	1	3	6	
19	W.	14	....	....	....	5	4	1	....	....	....	....	....	....	....	....	2	2	1	1	....	3	1	....	....	4	14	18
	C.	8	....	....	....	2	2	....	....	....	....	....	....	....	....	....	1	1	....	1	....	1	....	....	....	4	8	
20	W.	7	....	....	....	3	2	1	1	....	....	....	....	....	....	....	1	....	1	....	....	....	....	....	....	5	7	15
	C.	8	....	....	....	....	5	2	....	....	....	....	....	....	....	....	1	2	....	....	....	3	1	....	....	1	8	
21	W.	6	....	....	1	1	2	....	....	....	....	....	....	....	....	....	2	2	1	....	....	....	....	....	....	1	7	16
	C.	9	....	....	....	1	6	....	....	....	....	....	....	....	....	....	....	3	1	....	....	1	....	....	2	2	9	
22	W.	8	....	....	....	5	1	....	....	....	....	....	....	1	....	....	1	1	....	....	....	2	....	....	....	3	8	16
	C.	8	....	....	....	2	1	....	....	....	....	....	....	....	....	....	3	1	....	....	....	1	1	....	....	2	8	
23	W.	9	....	....	....	3	1	....	....	....	....	....	....	....	....	....	1	2	....	....	....	2	....	1	1	2	9	13
	C.	4	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	2	....	1	....	....	....	....	....	1	4	
24	W.	7	....	1	....	1	3	....	....	....	....	....	....	1	....	....	....	1	....	1	....	1	1	....	....	2	8	16
	C.	8	....	....	....	2	3	....	....	....	....	....	....	....	....	....	4	1	....	....	....	....	....	....	1	2	8	
25	W.	5	1	....	....	2	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	4	6	12
	C.	6	....	....	....	1	1	....	....	....	....	....	....	1	....	....	1	....	....	....	....	....	1	....	....	3	6	
26	W.	11	1	....	....	3	3	1	1	....	....	....	....	....	....	....	1	1	1	....	....	2	3	....	....	3	12	20
	C.	8	....	....	....	1	4	1	....	....	....	....	....	....	....	....	4	....	....	....	....	....	2	....	....	2	8	
27	W.	10	1	....	....	2	3	1	1	....	....	....	....	1	1	....	....	1	1	1	....	....	1	....	....	4	11	14
	C.	3	....	....	....	....	2	....	....	....	....	....	....	....	....	....	....	1	1	1	....	....	....	....	....	....	3	
28	W.	14	....	....	....	4	3	1	1	....	....	....	....	....	....	....	2	3	....	....	....	....	1	....	....	8	14	20
	C.	6	....	....	....	1	2	....	....	....	....	....	....	....	....	....	1	2	....	....	....	....	....	....	....	3	6	
29	W.	13	....	....	....	3	4	....	....	....	....	....	1	....	....	....	2	3	....	....	....	....	3	....	....	4	13	20
	C.	7	....	....	....	2	1	....	....	....	....	....	....	....	....	....	....	1	1	....	....	1	1	....	1	2	7	
30	W.	6	....	....	....	2	1	....	....	....	....	....	....	....	....	....	1	3	....	....	....	....	....	....	....	2	6	12
	C.	6	....	....	....	3	2	....	....	....	....	....	....	....	....	....	....	3	....	....	....	....	2	....	....	1	6	
31	W.	11	....	....	....	2	8	....	....	....	....	....	....	1	....	....	....	1	1	....	....	1	2	....	1	5	12	18
	C.	6	....	....	1	....	1	....	....	....	....	....	....	....	....	....	2	1	....	1	....	....	....	....	....	1	6	
Total and mean.	W.	278	8	0	4	90	67	12	6	0	0	7	1	10	0	1	34	46	13	5	0	29	27	2	9	95	291	482
	C.	197	2	0	2	33	71	11	5	0	0	1	0	3	0	0	41	34	8	7	0	24	15	2	7	55	201	

› *daily meteorological conditions and variations, etc.*—Continued.

[Barometer reduced to sea level. T. indicates trace of precipitation.]

JANUARY, 1897.

Meteorological conditions.											
Mean relative humidity.	Temperature (exposed bulb).				Mean (wet bulb).	Mean dew-point.	Direction of wind.		Total movement of wind.	Rainfall.	Day of month.
	Maximum.	Minimum.	Range.	Mean.			8 a. m.	8 p. m.			
84	46	32	14	39	35	32	E.	E.	127	.....	1
93	53	30	23	42	37	36	NE.	S.	87	.....	2
88	57	40	17	48	46	44	E.	S.	104	T.	3
88	64	52	12	58	52	51	E.	S.	138	T.	4
72	56	33	23	44	37	32	N.	NW.	205	0.20	5
59	33	22	11	28	21	12	NW.	NW.	386	T.	6
62	38	22	16	30	22	16	NW.	S.	117	.....	7
72	38	20	18	29	24	18	NE.	NE.	99	.....	8
74	46	19	27	32	26	22	N.	S.	84	.....	9
68	54	24	30	39	28	22	S.	N.	94	.....	10
68	46	23	23	34	28	23	N.	NW.	227	.....	11
52	34	22	12	28	23	14	W.	N.	269	T.	12
80	28	17	11	22	22	18	N.	S.	124	.02	13
84	31	21	10	26	26	24	NE.	E.	100	.05	14
90	33	28	5	30	31	29	N.	N.	105	.05	15
88	38	25	13	32	28	26	NW.	SW.	80	.....	16
96	44	32	12	38	38	37	S.	S.	191	.04	17
49	48	32	16	40	32	20	NW.	NW.	443	.06	18
60	32	25	7	28	24	16	N.	E.	195	.....	19
84	36	21	15	28	28	26	E.	E.	162	.13	20
76	48	33	15	40	34	31	W.	NW.	182	.91	21
66	49	34	15	42	34	28	S.	NW.	211	.....	22
43	43	24	19	34	22	10	NW.	NW.	380	.....	23
48	34	14	20	24	22	10	NE.	NW.	255	T.	24
56	16	9	7	12	8	—1	N.	NW.	332	.....	25
56	24	8	16	16	12	2	NW.	W.	329	.....	26
71	24	16	8	20	16	9	N.	N.	139	.21	27
64	18	9	9	14	10	3	NW.	NW.	593	.31	28
62	26	12	14	19	15	8	NW.	NW.	326	.....	29
64	30	9	21	20	16	10	NW.	N.	158	.....	30
72	36	10	26	23	20	15	SW.	E.	74	.....	31
70.6	38.8	23.2	15.6	30.9	26.4	20.7	NW.	NW.	6,316	1.98	

TABLE X.—*Daily mortality, classified by color, different diseases, violence, (*

FEBRUARY, 1897.

Day of month.	Color.	Mortality. Total deaths, less those by violence.	Deaths by violence. Accidents and negligence.	Homicides.	Suicides.	Deaths, by ages. 60 years old and over, less those by violence.	Under 5 years old, less those by violence.	Under 8 days old, less those by violence.	1 day old and under, less those by violence.	Scarlet fever.	Croup.	Diphtheria.	Diarrheal diseases.	Typhoid fever.	Typho-malarial fever.	Malarial fevers.	Phthisis pulmonalis.	Pneumonia.	Bronchitis.	Congestion of lungs.	Pleurisy.	Diseases of nervous system.	Diseases of the circulatory organs.	Rheumatism.	Diseases of digestive organs.	All other diseases.	Total deaths, by color.
1	W.	15				6	2	1	1									3				1	3		3	5	[illegible]
	C.	9				1	4	2	1								2	2		1		1				3	[illegible]
2	W.	17				5	5										2	6				2		1	1	5	[illegible]
	C.	5					1										1	1	1				1			1	[illegible]
3	W.	7	1		1	3	2	1	1							1		2				1				3	[illegible]
	C.	6				1	1										1	1					1			3	[illegible]
4	W.	14				3	3	2	1									5				1	1			7	[illegible]
	C.	7				3	1	1									1	1				1	1			3	[illegible]
5	W.	3	1															1								2	[illegible]
	C.	11				1	5	1	1			1						2	2					1		5	[illegible]
6	W.	17				6	6										2	3				1	1		1	9	[illegible]
	C.	8				1	2										2	1	1				1			3	[illegible]
7	W.	17				10	3	1	1							1	1	2		2		1	1		1	8	[illegible]
	C.	8					2							1			1			1			1			4	[illegible]
8	W.	13				2	3	1	1			1						2	1			1	2		2	4	[illegible]
	C.	10		1		1	4	1						1			3	1					1			4	[illegible]
9	W.	10				2	2					1					2	1					2			4	[illegible]
	C.	1					1												1								[illegible]
10	W.	10	1			3	1										2	3					2			3	[illegible]
	C.	9				1	5										2	4	1	1						1	[illegible]
11	W.	9	1				2	1	1								2	2					1			4	[illegible]
	C.	9				3	2										2	1		1		2				3	[illegible]
12	W.	20	1			6	2										2	8	1	1		1	2		1	4	[illegible]
	C.	9				1	4										3	4								2	[illegible]
13	W.	12				3	4					1					1	1	1	1						7	[illegible]
	C.	4				2	1										1	1								2	[illegible]
14	W.	9				3	1					1					2	1					2			3	[illegible]
	C.	11				1	2	1									2	2	2				1			4	[illegible]
15	W.	6				3											1	1				3	1				[illegible]
	C.	7				3	2										1			1			1			4	[illegible]
16	W.	11				5	3	1	1			1					3	1							1	5	[illegible]
	C.	9	1				3										2	2		1			1			3	[illegible]
17	W.	8	1			3	1						1				2					2	1			2	[illegible]
	C.	4				2												1				2			1		[illegible]
18	W.	12	1			5	3						1				1	3				1	1			5	[illegible]
	C.	11	1			2	3	1				1						1				1	1			7	[illegible]
19	W.	11	1			2	2										3	1	1			1				5	[illegible]
	C.	5					2										1	1					1			2	[illegible]
20	W.	7				2	2											2	1				1			3	[illegible]
	C.	7				3	3	1										2	1						1	3	[illegible]
21	W.	9				4	1				1			1			3								1	3	[illegible]
	C.	8				1	4										2									6	[illegible]
22	W.	9				3	2							1			1	2					1			4	[illegible]
	C.	6				1	1										3	1				1				1	[illegible]
23	W.	8				1	2					1						1					1		1	4	[illegible]
	C.	4					4	2	1											1						3	[illegible]
24	W.	5	1		1	1						1					1	2								1	[illegible]
	C.	9					4										2	2				1			1	3	[illegible]
25	W.	9				5	1					1					2	1					1		1	3	[illegible]
	C.	5				1	1										2	1							1	1	[illegible]
26	W.	10				4	2										2	3				2	1		1	1	[illegible]
	C.	16				3	3	1	1								5	2		2			1			6	[illegible]
27	W.	7				3	3	1	1				1					1				1				4	[illegible]
	C.	6					4	2	1									3								3	[illegible]
28	W.	15				4	5										5	3	1			2	2		1	1	[illegible]
	C.	10				2	6	2	1		1							1					3		1	4	[illegible]
Total and mean.	W.	300	9	0	2	97	63	9	8	0	1	8	3	2	0	2	40	61	6	4	0	21	27	1	15	110	31[illegible]
	C.	214	2	1	0	34	75	15	6	0	1	2	0	2	0	0	39	38	9	9	0	9	15	1	5	84	21[illegible]

daily meteorological conditions and variations, etc.—Continued.

[Barometer reduced to sea level. T. indicates trace of precipitation.]

FEBRUARY, 1897.

Meteorological conditions.											
	Temperature (exposed bulb).						Direction of wind.				
Mean relative humidity.	Maximum.	Minimum.	Range.	Mean.	Mean (wet bulb).	Mean dew-point.	8 a. m.	8 p. m.	Total movement of wind.	Rainfall.	Day of month.
79	38	12	26	25	28	24	NE.	NE.	143	.....	1
100	38	32	6	35	36	36	NE.	N.	513	2.11	2
59	40	38	8	36	31	24	N.	N.	345	.32	3
64	38	27	11	32	26	20	N.	E.	162	.....	4
92	36	22	14	29	28	29	NE.	E.	165	.01	5
98	53	34	19	44	44	44	E.	SE.	328	.59	6
80	50	38	12	44	41	38	NW.	NW.	279	T.	7
88	41	32	9	36	35	33	NW.	N.	72	.10	8
76	39	29	10	34	22	28	NW.	N.	241	.....	9
84	38	23	15	30	29	26	0	N.	50	.....	10
86	36	29	7	32	30	28	NE.	E.	135	.02	11
98	35	30	5	32	32	32	NE.	W.	104	.83	12
78	44	30	14	37	31	28	N.	E.	123	.....	13
86	59	28	31	44	37	36	NW.	E.	95	.....	14
78	53	35	18	44	40	37	E.	S.	92	.....	15
64	45	33	12	39	36	30	NW.	N.	172	T.	16
71	53	31	22	47	40	33	NW.	NW.	193	.....	17
81	55	38	17	46	40	36	NW.	NW.	134	.04	18
64	44	31	13	38	32	24	N.	N.	183	.08	19
92	38	26	12	32	31	30	N.	S.	134	.30	20
96	50	34	16	42	41	40	NW.	NE.	88	.27	21
98	44	37	7	40	40	39	NE.	E.	205	1.20	22
78	49	36	13	42	37	33	NW.	NW.	280	.53	23
60	44	32	12	38	30	23	NW.	S.	198	T.	24
79	44	30	14	37	24	31	N.	N.	78	.....	25
84	44	23	21	34	29	26	NE.	N.	146	.07	26
57	28	20	8	24	20	11	NW.	NW.	208	.....	27
60	37	18	19	28	25	18	NW.	S.	136	.....	28
79.5	43.7	29.4	14.3	36.5	33.3	29.7	NW.	N.	5,002 181.5	6.47 .23	

TABLE X.—*Daily mortality, classified by color, different diseases, violen*

MARCH, 1897.

Day of month.	Color.	Mortality.																														
		Total deaths, less those by violence.	Deaths by violence.			Deaths, by ages.																										
			Accidents and negligence.	Homicides.	Suicides.	60 years old and over, less those by violence.	Under 5 years old, less those by violence.	Under 8 days old, less those by violence.	1 day old and under, less those by violence.	Scarlet fever.	Croup.	Diphtheria.	Diarrheal diseases.	Typhoid fever.	Typho-malarial fever.	Malarial fevers.	Phthisis pulmonalis.	Pneumonia.	Bronchitis.	Congestion of lungs.	Pleurisy.	Diseases of nervous system.	Diseases of the circulatory organs.	Rheumatism.	Diseases of digestive organs.	All other diseases.
1	W.	10	..	..	..	5	2	1	..	..	..	..	..	..	..	..	1	1	..	1	..	2	..	..	2	4
	C.	10	1	..	..	1	4	2	1	..	..	..	..	..	..	..	1	2	..	..	..	2	1	..	..	4
2	W.	13	..	..	..	7	1	..	..	..	..	..	..	..	..	..	3	1	..	..	1	1	1	..	..	6
	C.	8	..	..	..	..	5	..	..	..	..	..	..	..	..	..	1	1	..	..	..	1	..	..	..	5
3	W.	9	1	..	..	5	2	..	..	..	..	..	..	..	..	..	2	1	..	..	..	2	..	..	..	4
	C.	8	1	..	..	1	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	1	..	..	..
4	W.	8	1	..	..	2	2	1	..	..	..	..	..	..	..	..	4	..	1	..	..	..	1	1	..	1
	C.	9	1	..	1	2	2	1	..	..	..	..	..	..	..	..	3	2	..	..	..	1	..	..	..	3
5	W.	8	..	..	1	3	2	1	1	..	..	..	..	..	..	..	1	..	..	..	..	2	2	..	..	2
	C.	6	..	..	..	..	5	1	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1	..	..	2
6	W.	9	..	..	..	3	3	..	..	..	..	..	..	..	..	..	..	1	..	1	..	1	2	..	1	3
	C.	8	..	..	..	..	6	1	..	..	..	..	..	..	..	..	2	..	2	2	..	..	..	..	1	1
7	W.	8	1	..	1	2	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	1	2	..	1	2
	C.	8	..	..	..	2	2	..	..	..	..	..	..	..	..	..	..	1	1	1	..	2	1	..	..	2
8	W.	6	1	..	..	2	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	4
	C.	10	..	..	..	..	7	1	1	..	..	..	..	..	..	..	1	1	2	..	..	1	..	..	1	4
9	W.	13	..	..	..	7	4	..	..	..	..	..	..	..	..	..	2	3	1	..	..	2	2	..	1	2
	C.	9	..	..	..	1	1	..	..	..	..	..	..	..	..	..	3	1	..	..	..	2	..	2	1	1
10	W.	11	..	..	..	3	3	..	..	..	..	..	..	..	1	..	1	2	1	..	..	1	..	..	1	4
	C.	4	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	2	..	..	1	1	..	1	..	..
11	W.	11	..	..	..	4	3	..	..	..	..	..	..	..	..	..	1	2	..	..	2	2	1	1	..	4
	C.	10	..	..	..	..	4	..	..	..	..	..	..	..	..	..	4	2	1	1	..	..	..	..	..	2
12	W.	13	..	..	..	5	4	2	2	..	..	..	..	..	..	..	..	2	2	..	..	3	1	..	..	5
	C.	13	..	..	..	2	2	..	..	..	..	..	..	..	..	..	2	4	..	..	..	..	1	..	..	6
13	W.	13	..	..	..	4	4	..	..	..	..	..	..	..	..	1	..	3	..	1	..	1	..	..	1	6
	C.	4	..	..	..	1	3	..	..	..	..	..	..	..	..	..	1	1	..	..	..	1	..	..	..	1
14	W.	7	1	..	..	2	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	1	4
	C.	6	..	..	..	..	4	..	..	..	..	..	..	..	..	..	2	2	..	..	..	..	..	..	..	2
15	W.	7	..	..	..	5	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	3	..	..	2
	C.	6	..	..	..	1	2	..	..	..	..	..	..	..	1	..	..	3	..	..	..	..	..	..	..	2
16	W.	9	..	..	..	1	2	1	1	..	..	..	..	..	1	..	2	2	..	..	..	..	2	..	..	2
	C.	4	..	..	..	1	1	..	..	..	..	..	..	1	..	..	1	..	..	..	..	1	..	..	..	1
17	W.	10	1	..	..	1	3	1	1	..	..	..	..	..	..	..	1	2	1	..	..	1	1	..	..	4
	C.	6	..	..	..	2	..	..	..	..	..	..	..	..	..	..	2	..	1	..	..	1	1	..	..	1
18	W.	9	..	..	..	3	4	1	1	..	..	..	..	..	..	..	1	2	..	..	..	1	..	..	1	4
	C.	9	..	..	..	1	2	..	..	..	..	..	..	..	..	..	6	2	..	..	..	..	..	..	1	..
19	W.	8	..	..	..	3	2	..	..	..	..	..	..	..	..	..	..	4	1	..	..	2	..	..	..	1
	C.	7	..	..	..	2	3	..	..	..	..	..	..	..	..	..	..	3	1	..	..	1	..	..	..	2
20	W.	8	..	..	..	1	1	..	..	..	..	..	..	..	..	..	1	1	..	..	..	1	..	..	..	5
	C.	9	..	..	..	2	5	..	..	..	..	..	1	..	..	..	1	..	1	..	..	1	..	..	..	5
21	W.	6	..	..	..	2	1	..	..	..	..	..	..	..	..	..	1	1	..	1	..	1	..	..	1	1
	C.	6	..	..	..	1	3	..	..	..	..	..	..	..	..	..	1	..	..	2	..	1	..	..	..	2
22	W.	14	..	..	..	5	3	2	2	..	..	..	..	..	..	..	..	1	..	..	..	1	2	..	..	10
	C.	12	..	..	..	5	2	..	..	..	..	..	..	..	1	..	2	1	..	..	..	2	1	..	..	5
23	W.	6	..	..	..	3	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	2	2
	C.	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	2	..	..	3
24	W.	6	..	..	..	3	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	4
	C.	6	1	..	..	..	3	1	1	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	4
25	W.	4	..	..	..	1	1	..	..	..	..	..	1	..	..	..	1	1	..	1	..	1	..	..	1	..
	C.	7	..	..	..	..	3	..	..	..	..	..	..	..	..	..	1	..	1	..	..	2	1	..	..	..
26	W.	3	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	1	1	..	..	1
	C.	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
27	W.	7	..	..	..	2	2	..	..	..	..	..	..	..	..	..	1	..	..	..	..	2	..	1	..	2
	C.	5	..	..	..	..	3	1	1	..	..	..	..	..	..	..	..	1	..	1	..	..	1	..	..	1
28	W.	12	..	..	..	6	3	..	..	..	..	..	..	..	..	..	1	1	1	..	..	1	2	..	1	2
	C.	5	1	..	..	1	4	..	..	..	..	..	..	1	..	..	1	3	1	..	..	..	..	..	..	1
29	W.	9	..	..	..	6	1	..	..	..	..	..	..	..	..	..	..	2	..	..	..	4	..	..	1	4
	C.	7	..	..	..	1	4	2	2	..	..	..	..	1	..	..	1	1	..	..	..	..	1	..	..	4
30	W.	10	..	..	..	3	3	1	1	..	..	..	..	..	..	..	1	..	..	..	..	1	1	..	..	5
	C.	4	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	2	..	..	..	..	..	..	..	3
31	W.	5	..	..	..	1	2	1	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	2
	C.	4	..	..	..	2	1	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	3
Total and mean.	W.	272	6	0	2	102	62	13	11	0	0	0	2	0	2	0	1	27	40	8	5	1	38	26	1	18	16
	C.	212	5	0	1	31	85	10	6	0	0	0	1	3	2	0	0	40	35	11	8	0	20	14	0	6	7

daily meteorological conditions and variations, etc.—Continued.

[Barometer reduced to sea level. T. indicates trace of precipitation.]

MARCH, 1897.

Meteorological conditions.											
Mean relative humidity.	Temperature (exposed bulb).				Mean (wet bulb).	Mean dew-point.	Direction of wind.		Total movement of wind.	Rainfall.	Day of month.
	Maximum.	Minimum.	Range.	Mean.			8 a. m.	8 p. m.			
80	44	29	15	36	34	30	E.	S.	160	.....	1
68	66	38	28	52	47	42	S.	S.	157	.....	2
78	68	42	26	55	52	50	S.	NW.	306	0 09	3
77	47	34	13	40	35	31	NW.	SE.	183	.....	4
88	49	36	13	42	42	40	S.	SW.	212	.06	5
93	54	35	19	44	46	46	NW.	N.	181	.14	6
76	40	30	10	35	31	28	NE.	E.	244	.18	7
89	52	28	14	35	33	32	NE.	S.	148	.....	8
96	49	36	13	42	43	42	S.	S.	168	.09	9
78	71	40	31	56	47	43	S.	N.	276	.....	10
66	60	31	29	46	39	32	NW.	S.	139	.....	11
85	63	40	23	52	46	44	SW.	W.	155	.12	12
64	54	34	20	44	34	28	N.	E.	299	.....	13
81	56	33	23	44	39	35	E.	NW.	240	.52	14
60	47	36	11	42	36	28	N.	0	164	.....	15
58	47	34	13	40	32	24	N.	SE.	175	.....	16
74	47	26	21	36	34	30	E.	S.	132	.01	17
92	47	40	7	44	42	42	S.	S.	150	.85	18
100	50	43	7	46	46	46	E.	NE.	113	.30	19
96	72	45	27	58	50	50	N.	NE.	126	.25	20
88	75	44	31	60	52	50	SW.	N.	103	.01	21
78	82	44	38	63	54	50	E.	NE.	150	T.	22
84	67	53	14	60	58	56	NE.	SE.	138	T.	23
64	54	41	13	48	40	33	NW.	NW.	353	.04	24
40	46	34	12	40	31	18	NW.	W.	417	.....	25
55	46	32	14	39	32	24	W.	N.	267	T.	26
54	48	26	22	37	32	23	N.	NW.	231	.....	27
51	50	33	17	42	34	25	NW.	0	250	.....	28
50	50	29	29	44	37	27	NW.	SE.	87	.....	29
60	60	34	34	51	44	36	E.	NE.	71	.....	30
54	54	43	17	52	42	30	NE.	N.	239	.....	31
73 5	55.7	36.2	19.5	46.0	40.8	36.0	NW.	S.	6,030	2.66	

TABLE X.—*Daily mortality, classified by color, different diseases, violence, and*

APRIL, 1897.

Day of month.	Color.	Mortality. Total deaths, less those by violence.	Deaths by violence. Accidents and negligence.	Homicides.	Suicides.	Deaths, by ages. 60 years old and over, less those by violence.	Under 5 years old, less those by violence.	Under 8 days old, less those by violence.	1 day old and over, less those by violence.	Scarlet fever.	Croup.	Diphtheria.	Diarrheal diseases.	Typhoid fever.	Typho-malarial fever.	Malarial fever.	Phthisis pulmonalis.	Pneumonia.	Bronchitis.	Congestion of lungs.	Pleurisy.	Diseases of nervous system.	Diseases of the circulatory organs.	Rheumatism.	Diseases of digestive organs.	All other diseases.	Total deaths, by color.	Total deaths.
1	W.	6				1											1	1				1	1			2	6	15
	C.	9				2	1											1	1			1	1		1	4	9	
2	W.	7				4	1	1	1								2		1						1	3	7	12
	C.	5				1												1				1	1			2	5	
3	W.	5				1	1	1						1								1	2			1	5	11
	C.	6				1	3	2										1				1	1			3	6	
4	W.	9				5	1	1	1								1	1			1		1			5	9	11
	C.	2				1	1																		1	1	2	
5	W.	11			1	2	4										2	2				2				5	12	18
	C.	6				2	1										1									5	6	
6	W.	6				2												3				1	1			1	6	9
	C.	3				1	1										1									2	3	
7	W.	7					2										1	2				1				3	7	15
	C.	7	1			1	4										1	2					1			3	8	
8	W.	3				2	1	1										1							1	1	3	10
	C.	6	1			1	2										3	2								1	7	
9	W.	9				5	2	1	1								1	1					1		2	4	9	18
	C.	9				4	2										2			1		4				2	9	
10	W.	12	2			4	1										3	1	1			1	2		1	3	14	24
	C.	10				2	2	1	1					1			1	1				1		1		5	10	
11	W.	11				1	4	1									2	2				3	1		1	2	11	14
	C.	3					1										1	1								1	3	
12	W.	8				3	2					1	1				1	1		1			2			1	8	18
	C.	10				2	4	1					2					2	1						1	4	10	
13	W.	5				1	1										2			1		2					5	12
	C.	7				1	3											2							3	2	7	
14	W.	8				2	4											2				3			1	2	8	18
	C.	10				3	4										2	1					2		1	4	10	
15	W.	12			1	4	3							1			3	1				2	1			4	13	20
	C.	6	1				2	2	1									2				1			2	1	7	
16	W.	5				3											1			1						3	5	10
	C.	5					1							1			1									3	5	
17	W.	10				3	3	1	1								2	2				3			1	2	10	13
	C.	3					1											1								2	3	
18	W.	10				4	2	2									1	1					1		1	6	10	15
	C.	5				3	2											2				3					5	
19	W.	7				4	1										1					3		1	1	1	7	11
	C.	4				2	1													1	1					2	4	
20	W.	6				4	2											1				2	1		1	1	6	11
	C.	5					2	1									3					1				1	5	
21	W.	8				5	1										1	1				2			1	3	8	14
	C.	6					1													1			3		1	1	6	
22	W.	4				3											1					2				1	4	10
	C.	5		1		1	2															1				4	6	
23	W.	6				2											1	2								3	6	11
	C.	5					2										2	1		1			1				5	
24	W.	7				4	3	1	1													1				6	7	17
	C.	9	1			1	3										2	2				2				3	10	
25	W.	6				1	2									1	1			2		1	1				6	13
	C.	6	1			1	2										3		1			1				1	7	
26	W.	4	1			1	2	2	2									1					1			2	5	13
	C.	8				2	2									1	1	1					1		1	3	8	
27	W.	8					2	1	1			1						2	1				1		1	2	8	15
	C.	7					3										1	1	1				1			3	7	
28	W.	5										1					1	1							1	1	5	9
	C.	3	1														2									1	4	
29	W.	7	1			2	3	2	2								1	1	1			1				3	8	14
	C.	6				2	1										2	1					1		1	1	6	
30	W.	8				4	1										1	1				3				3	8	14
	C.	5	1			1	1										1	1							1	2	6	
Total and mean.	W.	220	4	0	2	77	49	15	10	0	0	3	1	2	0	1	31	31	4	5	1	35	17	1	14	74	226	415
	C.	181	7	1	0	35	55	7	2	0	0	0	2	2	0	1	30	26	4	4	1	17	13	1	13	67	189	

daily meteorological conditions and variations, etc.—Continued.

[Barometer reduced to sea level. T. indicates trace of precipitation.]

APRIL, 1897.

Meteorological conditions.											
Mean relative humidity.	Temperature (exposed bulb).				Mean (wet bulb).	Mean dew-point.	Direction of wind.		Total movement of wind.	Rainfall.	Day of month.
	Maximum.	Minimum.	Range.	Mean.			8 a. m.	8 p. m.			
44	53	35	18	44	36	24	NE.	S.	212	.....	1
44	62	33	29	48	39	27	SW.	0	107	.....	2
46	64	34	26	47	40	29	NE.	SE.	185	.....	3
90	47	35	12	41	41	40	E.	E.	134	0.60	4
76	71	43	28	57	51	47	N.	W.	123	.74	5
64	64	47	17	56	47	40	W.	NW.	209	.08	6
66	60	38	22	49	46	40	NW.	SW.	79	T.	7
84	53	40	13	46	45	43	SW.	N.	117	.23	8
78	60	43	17	52	46	43	E.	NW.	219	.89	9
56	51	39	12	45	38	30	N.	NW.	267	.....	10
54	58	38	20	48	40	32	N.	E.	144	.....	11
73	52	39	13	46	42	38	N.	SE.	175	.04	12
74	61	35	26	48	44	40	SE.	S.	175	.....	13
70	77	53	24	65	57	52	SW.	NE.	221	.03	14
80	62	45	17	54	47	44	NW.	N.	225	.10	15
70	64	39	25	52	48	42	N.	SE.	144	.....	16
68	55	43	12	49	42	37	NE.	NW.	245	.29	17
54	62	40	22	51	42	32	NW.	S.	182	.....	18
48	74	40	34	57	45	34	S.	N.	313	.....	19
46	47	29	18	38	31	20	N.	N.	260	.....	20
52	62	34	28	48	41	32	S.	S.	160	.....	21
51	70	42	28	56	44	34	S.	S.	208	.....	22
62	77	41	36	59	52	46	E.	S.	107	.....	23
63	86	49	37	68	58	52	S.	S.	91	.....	24
53	88	58	30	73	53	52	SE.	SW.	180	.....	25
57	74	52	22	63	50	42	N.	N.	235	.01	26
48	59	43	16	51	40	27	NW.	NW.	397	.01	27
36	71	44	27	58	44	30	NW.	SE.	220	.....	28
56	70	46	24	58	50	42	E.	SE.	121	.....	29
68	75	51	24	63	57	53	E.	E.	144	.....	30
60.0	64.2	41.6	22.6	53.0	45.6	38.1	N.	S.	5,599	3.02	

TABLE X.—*Daily mortality, classified by color, different diseases, violence, and*

MAY, 1897.

Day of month.	Color.	Mortality.																														
		Total deaths, less those by violence.	Deaths by violence.			Deaths, by ages.																										
			Accidents and negligence.	Homicides.	Suicides.	60 years old and over, less those by violence.	5 years old and under, less those by violence.	Under 8 days old, less those by violence.	1 day old and under, less those by violence.	Scarlet fever.	Croup.	Diphtheria.	Diarrheal diseases.	Typhoid fever.	Typho-malarial fever.	Malarial fevers.	Phthisis pulmonalis.	Pneumonia.	Bronchitis.	Congestion of the lungs.	Pleurisy.	Diseases of nervous system.	Diseases of the circulatory organs.	Rheumatism.	Diseases of digestive organs.	All other diseases.	Total deaths, by color.	Total deaths.
1	W.	9	1			5	1	1									1					1	1		6	10	12
	C.	2					1						1													2	
2	W.	6				2	1					1					2				1	1		1	6	11
	C.	5					1										1		1			1			2	5	
3	W.	4				1												1			1	1			1	4	7
	C.	3					2	1	1								1				1				1	3	
4	W.	11	1			5	2	1	1								1	1			2	2		1	4	12	16
	C.	3	1			1	1	1													1	1			1	4	
5	W.	1				1															1					1	5
	C.	4					2	1	1									1				1			2	4	
6	W.	10				3	4	4	3								1				2	2		1	4	10	17
	C.	7				2	2										3					1			3	
7	W.	7				4	3	1	1									1			3	1			2	7	12
	C.	5					3	1	1									2	1						2	5	
8	W.	7				2	2	2	1					1			1				1				4	7	14
	C.	7				1	2														1	1			5	7	
9	W.	7	1			2	1					1					1				1	2			2	8	11
	C.	3				1	2																		1	3	
10	W.	16				3	1										3	1		1	4			2	5	16	20
	C.	4					2										1	1			1				1	4	
11	W.	9				3	1										1				1			2	5	9	15
	C.	6				1	1	1									2				2				2	6	
12	W.	2				1																2				2	6
	C.	4				1	1										2				1		1			4	
13	W.	3				2																1			2	3	8
	C.	4	1				1										1							2	1	5	
14	W.	3	1			1						1									1				1	4	8
	C.	4															2					1			1	4	
15	W.	4				1												1			1	1			1	4	11
	C.	7					2						1				2	1			1	1			1	7	
16	W.	9				2	4	2	2													3		1	5	9	11
	C.	2					1											2								2	
17	W.	7				3	2	1									2				1	1			3	7	15
	C.	7	1			1	2							2			2	1			1		1			8	
18	W.	10	1			1	3	1	1					1			2	1			1		1	1	3	11	17
	C.	6					4														1	2		2	1	6	
19	W.	4				2	1	1	1												2				2	4	9
	C.	5					2														1				4	5	
20	W.	5				2	2									1	1				1			1	1	5	13
	C.	8				2	3	2	1								1	1				1			5	8	
21	W.	6	1		1	1	3										1	1			1			2	1	8	14
	C.	6					4										2				2			2		6	
22	W.	2				1											1				1					2	7
	C.	5					1						1			1	2				1					5	
23	W.	4	1			1	1									1		1				1			1	5	14
	C.	8	1			1	4	1	1			2					1	2				1		1	1	9	
24	W.	7	1		1	4	2	1	1			1					2				1	1			2	9	18
	C.	9				1	5	1	1								2	2				1		2	2	9	
25	W.	5					2											1		1		1			2	5	14
	C.	9				3	1					1					1	1						1	5	9	
26	W.	3			1																2				1	4	12
	C.	6	2			1	2										1			1		1			3	8	
27	W.	6			1	4	2											1			2	1	1		1	7	12
	C.	5				1	3	1												1	1	1			2	5	
28	W.	7	1			1						1					2				2	1			1	8	12
	C.	3	1				1										1				1			1		4	
29	W.	7				3											3				1	2		1		7	10
	C.	3				2	1											1					1		1	3	
30	W.	1																1								1	13
	C.	11	1			1	7											2			3	1		2	3	12	
31	W.	9			1	2	3	1	1					1			1	1			1	1			4	10	16
	C.	5		1			1	1						1			1				1				2	6	
Total and mean.	W.	191	9	0	5	63	41	16	12	0	0	0	5	1	2	0	2	25	13	0	2	1	36	24	3	12	65	305	380
	C.	166	8	1	0	20	65	11	6	0	0	0	3	2	4	0	1	29	17	1	5	4	16	16	3	12	53	175	

› *daily meteorological conditions and variations, etc.*—Continued.

[Barometer reduced to sea level. T. indicates trace of precipitation.]

MAY, 1897.

Meteorological conditions.											
Mean relative humidity.	Temperature (exposed bulb)				Mean (wet bulb).	Mean dew-point.	Direction of wind.		Total movement of wind.	Rainfall.	Day of month.
	Maximum.	Minimum.	Range.	Mean.			8 a. m.	8 p. m.			
88	68	60	8	64	60	58	SE.	SE.	257	0.40	1
78	65	47	18	56	53	50	SW.	W.	196	.06	2
86	51	43	8	47	45	43	SE.	NW.	146	.49	3
67	63	44	19	54	48	43	NW.	NW.	153	T.	4
74	62	50	12	56	51	47	N.	NW.	208	.25	5
58	78	56	22	67	58	52	N.	0	234	.....	6
60	80	.54	26	67	55	48	SW.	E.	167	T.	7
40	66	46	20	56	45	31	NE.	SE.	152	.....	8
58	77	47	30	62	55	48	S.	S.	166	.....	9
66	83	62	21	72	62	58	SW.	NW.	208	T.	10
72	76	56	20	66	62	58	SE.	S.	93	.02	11
88	78	64	14	71	66	64	SW.	S.	238	.51	12
94	71	60	11	66	64	63	S.	S.	175	2.81	13
96	77	58	19	68	60	60	S.	W.	191	.31	14
75	68	50	18	59	54	50	NW.	N.	141	.04	15
61	69	49	20	59	52	46	N.	NE.	181	.....	16
62	70	45	25	58	53	48	N.	N.	106	.....	17
58	77	50	27	64	56	49	NW.	W.	158	.....	18
57	81	58	23	70	60	54	N.	SE.	120	.....	19
64	83	59	24	71	62	56	S.	SE.	230	.....	20
68	78	52	26	65	59	54	S.	N.	196	.08	21
60	71	44	27	58	52	45	N.	S.	143	.....	22
74	81	55	26	68	62	59	S.	S.	229	.....	23
96	77	58	19	68	61	60	SE.	NW.	149	1.97	24
68	66	52	14	59	52	48	NW.	NW.	294	.03	25
64	65	48	17	56	50	44	N.	N.	195	.....	26
54	70	48	22	59	50	41	NW.	W.	176	.....	27
55	78	52	26	65	56	48	NW.	SW.	153	T.	28
58	67	58	9	62	52	45	NW.	N.	294	.....	29
74	70	45	25	58	57	54	E.	SE.	103	.....	30
76	74	58	16	66	60	56	NW.	NW.	144	T.	31
69.3	72.2	52.5	19.7	62.5	55.9	51	NW.	S.	{5,641 181.9	6.99 .22	

TABLE X.—*Daily mortality, classified by color, different diseases,* violence

JUNE, 1897.

Day of month.	Color.	Total deaths, less those by violence.	Deaths by violence.			Deaths, by ages.				Mortality.																				
			Accidents and negligence.	Homicides.	Suicides.	60 years old and over, less those by violence.	Under 5 years old, less those by violence.	Under 8 days old, less those by violence.	1 day old and under, less those by violence.	Scarlet fever.	Croup.	Diphtheria.	Diarrheal diseases.	Typhoid fever.	Typho-malarial fever.	Malarial fevers.	Phthisis pulmonalis.	Pneumonia.	Bronchitis.	Congestion of lungs.	Pleurisy.	Diseases of nervous system.	Diseases of the circulatory organs.	Rheumatism.	Diseases of digestive organs.	All other diseases.				
1	W.	3					1					1	1												1				
	C.	6				1	2							1					1						1				
2	W.	4				1											1		1			1			1				
	C.	7				2	2	1															2	1	1	1				
3	W.	8				5	1	1	1							1	1									1				
	C.	6					1										3	1					1							
4	W.	5	2			2	2						1			1	1													
	C.	7				2	4	1				1										1	2							
5	W.	9				4	2							1			1	1	1				1		1				
	C.	6				1	4					1					2								1				
6	W.	3				2																	1						
	C.	1	1				1																						
7	W.	7			1							1					1					3							
	C.	5																					2							
8	W.	10				3	3					1					2		1			1			1				
	C.	4					1												1			1							
9	W.	6			2	2	1	1				1					1					2			1				
	C.	1	1																			1							
10	W.	4	1			1	1	1	1													2							
	C.	6				2	3	1	1										1				1		1				
11	W.	6				4	1							1								1	1		1				
	C.	10				1	4										3					1	1						
12	W.	6				2	1																		1				
	C.	7				2	2	1	1								2					2							
13	W.	9				3	4						2				1	1	1			1	1						
	C.	11	1			3	2										2	1				1	2		2				
14	W.	10				4	5	1	1			1				1	1						1		2				
	C.	4				1	1															1	1						
15	W.	5				2	2	1					1									2	1						
	C.	4				1	2	1					1				1					1							
16	W.	10	1			3	6	2	2				1			1		2				1			1				
	C.	14				1	7	2	1			2	1	1			4					1			1				
17	W.	5				2						1				1							2						
	C.	6				2	3						2									2							
18	W.	5					2						2			1													
	C.	6				1	4						2									1	2						
19	W.	8	3			2	4	2	1			1							1						1				
	C.	7	2				6												1				1		4				
20	W.	9				5	1										2	1				3			1				
	C.	9				1	4	1						1			1	1				1	1						
21	W.	7	1			2											1					2	1		2				
	C.	7				1	5	1	1				1						1										
22	W.	6	1			1	2						2									1	2		1				
	C.	4					2										1						1						
23	W.	14				8	3						2				1	1				1	4						
	C.	10					7	1					2	1			1	1	1										
24	W.	11				4	3						1			1	1						2		2				
	C.	6	1				4	1	1				1						1				2		1				
25	W.	9	1			4	3						1				1	1				2			1				
	C.	11					6						2	1			1	1				1			1				
26	W.	13				2	9						3				3			1		3							
	C.	10					7	1					2									1	1		2				
27	W.	7				2	4	1				1						1				3							
	C.	6					4						1				1	1				1							
28	W.	7				2	5						3	1	1										2				
	C.	12				1	2										4					3	1		1				
29	W.	18				6	3						1	1		1	3					3			3				
	C.	11	1			2	8					1	4				1					1			1				
30	W.	7	1			1	6						3												1				
	C.	13	1			3	8						2				1					2	1		3				
Total and mean.	W.	231	11	0	3	79	75	10	6	0	0	8	24	4	1	8	23	10	4	1	0	32	17	0	25	7				
	C.	216	8	0	0	28	106	12	5	0	0	4	22	5	0	0	30	9	4	0	0	23	22	1	21	7				

daily meteorological conditions and variations, etc.—Continued.

[Barometer reduced to sea level. T. indicates trace of precipitation.]

JUNE, 1897.

Meteorological conditions.											
	Temperature (exposed bulb).						Direction of wind.				
Mean relative humidity.	Maximum.	Minimum.	Range.	Mean.	Mean (wet bulb).	Mean dew-point.	8 a. m.	8 p. m.	Total movement of wind.	Rainfall.	Day of month.
60	69	50	19	60	54	48	N.	N.	186	.....	1
65	74	43	31	58	55	50	W.	SE.	144	.....	2
84	84	63	21	74	68	66	SW.	SW.	236	0.02	3
91	86	68	18	77	70	68	SW.	NE.	108	.26	4
86	72	59	13	66	62	60	NW.	N.	168	.32	5
79	78	56	22	67	65	62	N.	SE.	131	.....	6
87	62	57	5	60	56	54	SE.	E.	223	T.	7
98	60	56	4	58	58	57	NE.	N.	161	.18	8
90	70	58	12	64	61	60	N.	N.	139	T.	9
76	74	55	19	64	60	58	NW.	N.	187	.....	10
72	79	56	23	68	63	60	N.	NW.	87	T.	11
60	86	65	21	76	64	59	NW.	N.	161	.....	12
73	84	59	25	72	64	61	W.	NW.	171	.02	13
72	83	63	20	73	66	62	NW.	NW.	202	.....	14
80	89	61	28	75	65	63	W.	NW.	148	.15	15
77	88	65	23	76	70	68	NW	S.	92	T.	16
84	76	64	12	70	64	63	NE.	NE.	159	1.12	17
85	78	62	16	70	66	63	NE.	0	116	.13	18
73	81	59	22	70	67	62	SE.	S.	154	.....	19
74	85	65	20	75	67	64	W.	NW.	185	.32	20
60	71	56	15	64	55	49	N.	SW.	155	.....	21
65	77	51	26	64	60	56	W.	S.	131	.....	22
69	80	64	16	72	64	60	S	S.	212	.....	23
86	85	62	23	74	70	69	S.	SE.	86	07	24
65	91	70	21	80	72	68	W	W.	172	.....	25
63	81	65	16	73	62	58	NW.	N	182	.....	26
54	74	59	15	66	56	48	NE.	S.	140	.....	27
78	72	55	17	64	62	60	SE.	SE.	76	T.	28
77	84	67	17	76	71	68	SW.	S.	78	T	29
60	93	74	19	84	72	67	SW.	NW.	202	.01	30
74.8	78.9	60.2	18.6	69.7	63.6	60.4	NW	N.	4,592	2.60	

TABLE XI.—*Showing deaths, arranged according to age, sex, and color, with percentage for twenty-one years ended June 30, 1897.*

WHITE MALES.

Years.	Total deaths.	5 years and over.		20 years and over.		40 years and ov	
		Number of deaths.	Percentage to total deaths.	Number of deaths.	Percentage to total deaths.	Number of deaths.	Percen to to deat
1877	1,148	725	63.15	633	55.14	432	
1878	1,125	683	60.71	568	50.49	380	
1879	1,130	689	60.97	562	49.73	384	
1880	1,097	711	64.18	641	58.43	459	
1881	1,179	791	67.10	709	60.14	509	
1882	1 254	854	68.10	751	59.88	541	
1883	1 196	820	68.53	709	59.28	533	
1884	1.322	885	66.94	764	57.79	572	
1885	1,375	957	69.67	841	61.16	601	
1886	1,312	949	72.33	841	64.10	610	
1887	1.343	940	69.84	845	62.91	596	
1888	1,456	978	67.14	875	60.06	651	
1889	1,458	969	66.46	873	60	648	
1890	1.631	1,155	70.81	1,038	63.64	742	
1891	1,697	1,201	70.77	1,092	64.35	830	
1892	1,847	1,302	70.50	1,175	63.56	866	
1893	2,020	1,442	71.38	1,329	65.79	997	
1894	1,815	1.260	69.42	1,132	62.37	854	
1895	1,715	1,271	74.11	1,161	67.69	861	
1896	1,810	1,270	70.17	1,170	64.64	879	
1897	1,773	1,330	75.01	1,224	69.04	922	
Total deaths and mean percentages thereto.	30,703	21,182	68.99	18,933	61.66	13,867	

WHITE FEMALES.

1877	1,039	621	59.77	522	50.24	339
1878	1,041	653	62.73	541	51.97	354
1879	1,066	647	60.69	535	50.19	334
1880	988	592	59.92	529	53.54	351
1881	1,026	716	69.78	611	59.55	404
1882	1,099	731	66.52	631	57.42	410
1883	1,075	728	67.78	632	58.85	439
1884	1,254	801	63.88	687	54.78	465
1885	1,235	832	67.37	705	57.08	489
1886	1,130	803	71.06	702	62.12	458
1887	1,141	800	70.20	697	61.08	488
1888	1,322	898	67.92	791	59.83	530
1889	1,255	845	67.33	733	58.40	511
1890	1,303	883	67.76	781	59.94	525
1891	1,409	1,011	71.75	897	63.66	607
1892	1,595	1,134	71.10	990	62.07	686
1893	1,657	1,148	69.28	1,016	61.31	734
1894	1,514	1,070	70.67	943	62.28	703
1895	1,399	1,024	73.20	899	64.26	648
1896	1,492	1,065	71.38	951	63.74	706
1897	1,443	1,060	73.46	969	67.15	711
Total deaths and mean percentages thereto.	26,482	18,112	68.39	15,762	59.52	10,839
Total whites	57,185	39,294	68.71	34,695	60.67	24,706

E XI.—*Showing deaths, arranged according to age, sex, and color, with percentages, for twenty-one years ended June 30, 1897*—Continued.

COLORED MALES.

Years.	Total deaths.	5 years and over.		20 years and over.		40 years and over.	
		Number of deaths.	Percentage to total deaths.	Number of deaths.	Percentage to total deaths.	Number of deaths.	Percentage to total deaths.
.....	988	417	42.20	337	34.11	206	20.85
.....	1,007	394	39.13	311	30.88	197	19.56
.....	1,051	430	40.91	348	33.11	209	19.89
.....	1,025	407	39.71	325	31.71	186	18.15
.....	921	424	46.04	347	37.68	210	22.80
.....	1,062	500	47.08	402	37.85	245	23.07
.....	1,004	504	50.20	397	39.54	253	25.20
.....	1,081	481	44.50	381	35.24	242	22.39
.....	1,210	587	48.51	476	39.34	300	24.79
.....	1,077	574	53.29	458	42.52	297	27.57
.....	1,079	536	49.67	427	39.60	270	25.03
.....	1,049	536	51.09	440	41.94	301	28.69
.....	1,180	583	49.41	475	40.25	289	24.50
.....	1,292	682	52.79	532	41.17	352	27.24
.....	1,295	696	53.75	557	43.01	352	27.18
.....	1,389	740	54	600	43.82	282	27.90
.....	1,391	744	53.49	606	43.56	383	27.54
.....	1,252	714	52.81	587	43.42	357	26.40
.....	1,188	690	58.08	528	44.44	359	30.22
.....	1,290	662	52.87	574	44.50	360	27.91
.....	1,211	717	59.20	599	49.46	384	31.71
Total deaths and mean percentages thereto.	24,122	12,038	49.90	9,797	40.61	6,134	25.43

COLORED FEMALES.

.....	1,033	518	50.45	396	38.33	221	21.30
.....	1,058	504	47.64	374	35.35	208	19.66
.....	1,062	523	49.25	424	39.92	230	21.06
.....	1,096	537	49	434	39.60	237	21.62
.....	1,010	525	51.91	448	44.36	231	22.87
.....	1,156	613	53.03	490	42.39	282	24.30
.....	1,012	540	53.36	422	41.70	243	42.01
.....	1,157	607	52.46	466	40.28	261	22.56
.....	1,178	664	56.37	510	43.29	319	27.80
.....	1,155	652	56.45	516	44.67	297	25.71
.....	1,102	598	54.26	459	41.65	284	25.77
.....	1,203	686	56.80	547	41.10	303	25
.....	1,259	666	52.90	509	40.43	293	23.27
.....	1,338	776	57.10	594	44.39	341	25.48
.....	1,319	746	56.55	609	46.17	368	27.89
.....	1,287	737	57.29	590	45.84	357	27.74
.....	1,384	750	54.84	598	43.21	371	26.80
.....	1,358	773	56.92	592	43.59	357	26.28
.....	1,263	815	64.53	649	51.38	412	28.43
.....	1,312	787	59.98	633	48.25	391	29.80
.....	1,310	794	60.61	650	49.62	372	28.47
Total deaths and mean percentages thereto.	25,062	13,920	55.54	10,910	43.49	6,378	25.44
Total colored.....	49,184	25,958	52.77	20,697	42.08	12,512	25.44
Grand total and mean.	106,369	65,252	61.34	55,356	52.04	37,218	34.99

TABLE XII.—*Deaths and average ages in seventeen years, from July 1, 1881, to June 30, 1897, inclusive.*

WHITE.

Years.	All ages.				5 years and over.				20 years and over.				40 years and	
	Total deaths.	Average.			Total deaths.	Average.			Total deaths.	Average.			Total deaths.	Ave
		y.	m.	d.		y.	m.	d.		y.	m.	d.		y.
1881	2,205	32	0	1	1,507	46	3	0	1,320	51	3	8	913	60
1882	2,353	32	1	6	1,585	46	7	5	1,382	51	7	23	951	62
1883	2,270	32	4	22	1,548	45	9	2	1,341	51	10	20	972	60
1884	2,576	31	1	28	1,686	46	8	13	1,451	52	5	15	1,037	61
1885	2,610	32	3	4	1,789	46	2	17	1,546	51	3	17	1,090	61
1886	2,442	34	6	19	1,752	46	10	22	1,543	51	8	20	1,068	61
1887	2,484	34	1	17	1,740	47	7	15	1,542	52	3	6	1,084	61
1888	2,778	33	2	28	1,876	48	0	28	1,666	52	10	12	1,181	62
1889	2,713	32	8	6	1,814	47	11	2	1,606	52	6	5	1,159	61
1890	2,934	33	8	0	2,038	47	3	9	1,819	51	11	29	1,267	61
1891	3,106	34	7	25	2,212	48	4	11	1,989	52	8	5	1,437	62
1892	3,442	34	6	7	2,436	48	2	16	2,165	52	10	1	1,552	62
1893	3,677	34	1	19	2,590	49	2	9	2,345	52	10	2	1,731	61
1894	3,329	35	9	26	2,330	50	0	7	2,075	51	10	17	1,557	62
1895	3,114	36	9	22	2,295	49	10	16	2,060	53	9	1	1,509	62
1896	3,302	35	7	23	2,335	50	4	2	2,121	54	7	17	1,585	62
1897	3,216	38	3	26	2,370	51	3	28	2,193	54	5	22	1,633	63
Total and mean ...	48,551	34	0	17	33,903	48	0	29	33,164	52	6	11	21,726	62

COLORED.

		y.	m.	d.		y.	m.	d.		y.	m.	d.		y
1881	1,931	20	11	6	949	41	9	13	795	47	8	10	441	6
1882	2,218	21	5	23	1,113	41	0	3	892	48	5	16	527	61
1883	2,016	21	9	17	1,044	40	8	23	821	48	10	7	496	61
1884	2,238	19	11	13	1,088	40	5	23	847	49	1	3	507	61
1885	2,388	22	7	29	1,249	40	6	18	986	50	0	22	618	62
1886	2,232	22	11	17	1,226	41	4	4	971	47	6	20	594	62
1887	2,181	22	0	7	1,134	41	3	22	886	49	4	16	554	5
1888	2,262	22	11	3	1,222	41	9	22	987	48	8	2	604	6
1889	2,439	21	11	24	1,240	40	11	8	984	47	6	13	582	6
1890	2,630	22	10	6	1,458	40	1	20	1,126	47	3	2	693	5
1891	2,614	22	9	29	1,442	40	6	17	1,166	47	6	1	720	5
1892	2,656	23	4	23	1,477	40	9	2	1,190	48	0	28	739	5
1893	2,775	23	8	18	1,503	41	3	5	1,204	48	4	28	754	6
1894	2,710	22	11	9	1,487	39	9	16	1,179	46	10	16	714	5
1895	2,451	25	8	27	1,505	41	5	3	1,177	47	10	15	771	5
1896	2,602	24	4	21	1,469	41	11	1	1,207	47	11	11	751	5
1897	2,521	24	11	18	1,511	41	4	12	1,249	47	2	12	756	5
Total and mean ...	40,864	22	9	17	22,117	41	0	19	17,670	48	1	22	10,821	6
Aggregate	89,415	28	5	2	56,020	44	5	24	40,834	50	4	1	32,547	6

—*Deaths under 1 month of age from convulsions and trismus nascentium, by age and months, for year ended June 30, 1896.*

BY AGE.

	Convulsions.					Trismus nascentium.				
	White.		Colored.			White.		Colored.		
	Males.	Females.	Males.	Females.	Total.	Males.	Females.	Males.	Females.	Total.
.....	2	....	1	1	4	....	....	....	....	....
.....	1	....	....	....	1	1	....	....	....	1
.....	1	....	....	....	1	....	....	....	....	....
.....	1	....	1	....	2	1	....	1	....	2
.....	2	....	1	3	6	1	....	2	....	3
.....	1	....	4	3	8	....	1	1	1	3
.....	3	....	3	....	6	....	1	....	....	1
.....	1	1	6	2	10	....	....	....	....	....
.....	1	1	3	1	6	....	1	1	1	3
s.....	....	1	1	2	4	....	....	1	....	1
rs.....	1	....	....	2	3	1	1	....	....	2
rs.....	....	....	....	....	....	....	....	....	....	....
rs.....	1	....	....	....	1	....	....	....	....	....
rs.....	....	1	2	....	3	....	....	....	....	....
ks.....	1	1	2	1	5	....	....	....	....	....
ks.....	1	2	2	6	11	....	....	....	....	....
.....	17	7	26	21	71	4	4	6	2	16

BY MONTHS.

.....	1	....	5	3	9	....	1	1	....	2
.....	3	....	2	2	7	....	....	1	....	1
.....	....	1	5	5	11	1	1	....	1	3
.....	....	1	2	....	3	1	....	....	1	2
.....	....	2	1	....	3	....	1	1	....	2
.....	1	....	1	2	4	....	1	....	....	1
.....	....	1	....	3	4	1	....	1	....	2
.....	1	....	....	1	2	....	....	....	....	....
.....	3	....	3	1	7	....	....	....	....	....
.....	3	1	2	1	7	....	....	....	....	....
.....	1	1	1	....	3	1	....	....	....	1
.....	4	....	4	3	11	....	....	2	....	2
.....	17	7	26	21	71	4	4	6	2	16

TABLE XIV.—STILLBIRTHS.—*Cause, legitimacy, period of utero-gestation, and by whom reported, for the year ended June 30, 1897.*

	White.		Colored.		Total
	Male.	Female.	Male.	Female.	
Legitimacy:					
Legitimate	69	85	110	70	
Illegitimate	15	18	61	59	
Total	84	103	171	129	
Period of utero-gestation:					
Four months and under	13	10	21	11	
Fifth month	4	3	18	2	
Sixth month	7	15	26	21	
Seventh month	6	15	27	23	
Eighth month	7	10	19	29	
Ninth month	47	49	59	42	
Tenth month	.....	1	1	1	
Total	84	103	171	129	
By whom reported:					
Physician	65	85	127	92	
Coroner	19	18	44	37	
Total	84	103	171	129	
Causes:					
Abortive habit	.....	1	.....	1	
Anacephalus	1	.....	.....	.....	
Asphyxia	1	.....	2	.....	
Cord:					
Pressure on	4	1	5	4	
Prolapsus	2	1	.....	.....	
Strangulation	3	2	.....	.....	
Difficult and prolonged labor	6	13	3	2	
Fall of mother	3	2	6	3	
Fright of mother	2	3	.....	3	
Fatty degeneration of placenta	.....	.....	1	4	
Hydramnion	.....	1	.....	1	
Ill health of mother	.....	1	5	3	
Instrumental delivery	.....	.....	1	1	
Malformation of pelvis	.....	3	.....	1	
Maceration in utero	2	.....	1	2	
Nonviable (prematurity of fœtus)	.....	1	.....	1	
Overexertion of mother	.....	2	15	4	
Placenta previa	4	2	1	2	
Presentation:					
Breech	3	4	2	.....	
Face	2	.....	.....	.....	
Shoulder	3	2	.....	.....	
Feet	1	.....	1	.....	
Puerperal eclampsia (mother)	3	1	1	.....	
Syphilis	.....	1	3	7	
Uræmia (mother)	1	3	1	.....	
Unknown and not stated	43	59	123	90	
Total	84	103	171	129	

—BIRTHS REPORTED.—*Statement, by months and quarters, for the year ended June 30, 1897.*

nd quarters.	Total.	White.		Colored.		Twins.		Illegitimate.		Attended by physicians.		Attended by midwives.	
		Male.	Female.	Male.	Female.	White.	Colored.	White.	Colored.	White.	Colored.	White.	Colored.
896.													
.....	373	131	93	74	75	10	2	6	35	157	53	67	96
.....	417	134	132	68	83	6	4	14	28	180	44	86	107
.....	376	88	117	84	87	8	4	5	41	128	60	77	111
st quarter	1,166	353	342	226	245	24	10	25	114	465	157	230	314
.....	416	148	115	81	72	4	0	8	39	171	61	92	93
.....	367	108	108	65	86	4	2	5	30	141	51	75	100
.....	369	121	107	69	72	0	0	10	45	134	43	94	98
cond quarter....	1,152	377	330	215	230	8	2	23	114	446	155	261	290
897.													
.....	424	117	131	89	87	8	0	8	52	162	62	86	114
.....	353	115	85	77	76	4	6	3	38	125	59	75	94
.....	405	134	123	73	75	8	4	7	37	148	53	109	95
ird quarter	1,182	366	339	239	238	20	10	18	127	435	174	270	303
.....	352	115	113	62	62	10	0	10	28	146	82	33	91
..e.....	352	96	119	72	65	4	4	9	39	139	53	76	84
.....	369	125	86	86	72	6	0	11	55	135	79	76	79
urth quarter	1,073	336	318	220	199	20	4	30	122	420	214	185	254
r sex and color ..	4,573	1,432	1,329	900	912	72	26	96	477	1,766	700	946	1,161
r color.....	.....	2,761		1,812		.....	.....	.....	.....	.....	.....	.....	.....
r the year.....	.....	4,573				98		573		2,466		2,107	

TABLE XVI.—BIRTHS.—*Number of births (reported) in different hospitals during the year ended June 30, 1897.*

Months.	Color.	Sex.	Columbia Hospital.	Freedmen's Hospital.	Washington Asylum Hospital.	National Homeopathic Hospital.	Garfield Memorial Hospital.	United States Soldiers' Home.	Government Hospital for Insane, St. Elizabeth.	St. Ann's Asylum.	Sibley Hospital.	Emergency Hospital.
1896.												
July	White	Male	3									
		Female	1			1	1					
	Colored	Male	7	5	1		1					
		Female	7	5		1						
August	White	Male	7			1	2					
		Female	7			2		1				
	Colored	Male	6	4		2						
		Female	7	5	1	1	2					
September	White	Male	2									
		Female	6				1					
	Colored	Male	9	9			1					
		Female	10	9	1		2					
October	White	Male	3				2					
		Female	4				1					
	Colored	Male	7	8	1							
		Female	5	6			4					
November	White	Male										
		Female	2	2	1				1			
	Colored	Male	7	4	1	2						
		Female	4	5	2							
December	White	Male	4	1		1	1					
		Female	3									
	Colored	Male	9	7		1	1					
		Female	4	2		1						
1897.												
January	White	Male	4				1					
		Female	3			1	1					
	Colored	Male	11	7	2	1						
		Female	3	9		1						
February	White	Male	4			1						
		Female	3							1		
	Colored	Male	5	11	2	2						
		Female	4	10		2						
March	White	Male	1			1	1					
		Female	1		3							
	Colored	Male	2	19			1					
		Female	1	11	1							
April	White	Male	3						1			
		Female	3	2						1	1	
	Colored	Male	6	4								1
		Female	1	7	2							
May	White	Male	2				2					
		Female	6				1			1		
	Colored	Male	9	11								
		Female	2	6								
June	White	Male	1				2					
		Female	4									
	Colored	Male	8	8		3	4					
		Female	7	7		2						

RECAPITULATION.

	Total.	White.	Colored.	Males.	Females.
Columbia Hospital	215	77	138	117	98
Freedmen's Hospital	184	5	179	98	86
Washington Asylum Hospital	18	4	14	7	11
National Homeopathic Hospital	27	8	19	15	12
Garfield Hospital	32	16	16	19	13
Soldiers' Home Hospital	1	1			1
St. Elizabeth (insane) Hospital	2	2		1	1
St. Ann's Orphan Asylum	3	3			3
Sibley Memorial Hospital	1	1			1
Emergency Hospital	1		1	1	
Total	484	117	367	258	226

XVII.—MARRIAGES (REPORTED).—*Number of brides and grooms, year ended June 30, 1897.*

mber of marriages of grooms.	Number of marriages of brides.				
	First marriage.	Second marriage.	Third marriage.	Fourth marriage.	Total.
marriage	817	41	3	.....	861
d marriage	80	32	1	.....	113
marriage	5	4	1	.....	10
h marriage	.....	.....	.....	.....	.....
al	902	77	5	.....	984
marriage	428	30	.....	.....	458
d marriage	49	18	2	.....	69
marriage	3	1	3	.....	7
h marriage	.....	1	.....	.....	1
al	480	50	5	.....	535
nd total	1,382	127	10	.....	1,519

XVIII.—MARRIAGES (REPORTED).—*Nationality of brides and grooms of white race, year ended June 30, 1897.*

Birthplace of grooms.	Birthplace of brides.										
	United States.	England.	Ireland.	Scotland.	Germany.	Canada.	Sweden.	Denmark.	Italy.	Wales.	Miscellaneous.	Total.
ates	1,399	8	14	....	4	1	1	....	....	....	....	1,427
	6	3	1	1	....	....	....	....	....	....	....	11
	15	....	11	....	....	....	....	....	....	....	....	26
	5	....	....	2	....	....	....	....	....	....	....	7
	17	....	1	....	6	....	....	....	....	....	....	24
	5	....	....	....	....	1	....	....	....	....	....	6
	1	....	....	....	....	....	1	....	....	....	....	2
	2	....	....	....	....	....	....	....	....	....	....	2
	1	....	....	....	....	....	....	....	....	....	....	6
	2	....	....	....	....	....	....	....	5	....	....	2
eous	5	....	....	....	....	1	....	....	....	....	....	6
al	1,458	11	27	3	10	3	2	....	5	....	....	1,519

TABLE XIX.—MARRIAGES (REPORTED).—*Ages of brides and grooms of white race fo year ended June 30, 1897.*

Ages of grooms.	Ages of brides.							
	Under 20 years.	20 to 25 years.	25 to 30 years.	30 to 40 years.	40 to 50 years.	50 to 60 years.	60 to 70 years.	Total
Under 20 years	3	1	.....	.....	.....	.....	.....	
20 to 25 years	134	234	23	3	1	.....	.....	
25 to 30 years	27	150	64	11	.....	.....	.....	
30 to 40 years	15	106	57	52	3	.....	.....	
40 to 50 years	.....	13	13	25	11	.....	.....	
50 to 60 years	.....	3	.....	5	6	9	.....	
60 to 70 years	.....	.....	.....	3	5	2	1	
70 to 80 years	.....	1	.....	2	.....	1	.....	
Total	179	508	157	101	26	12	1	

TABLE XX.—MARRIAGES (REPORTED).—*Ages of brides and grooms of colored race fo year ended June 30, 1897.*

Ages of grooms.	Ages of brides.							
	Under 20 years.	20 to 25 years.	25 to 30 years.	30 to 40 years.	40 to 50 years.	50 to 60 years.	60 to 70 years.	Total
Under 20 years	3	.....	.....	.....	.....	.....	.....	
20 to 25 years	85	178	12	3	.....	.....	.....	
25 to 30 years	22	58	23	7	.....	.....	.....	
30 to 40 years	4	51	17	12	2	.....	.....	
40 to 50 years	1	7	10	17	6	.....	.....	
50 to 60 years	.....	1	1	3	5	1	.....	
60 to 70 years	.....	1	.....	1	.....	3	1	
Total	115	296	63	43	13	4	1	

TABLE XXI.—*Deaths and death rates for the last twenty-two fiscal years.*

Years.	July.					August.					September.				
	White.		Colored.			White.		Colored.			White.		Colored.		
	Deaths.	Annual death rate.	Deaths.	Annual death rate.	Annual death rate for total population.	Deaths.	Annual death rate.	Deaths.	Annual death rate.	Annual death rate for total population.	Deaths.	Annual death rate.	Deaths.	Annual death rate.	Annual death rate for total population.
1875	223	25.46	203	54.63	32.77	227	25.81	218	52.12	34.01	162	18.68	194	47.61	27.93
1876	298	32.78	269	57.62	42.24	209	27.88	188	43.39	29.44	172	19.34	177	41.74	26.57
1877	224	24.07	252	46.15	34.59	206	22.25	208	46.42	30.11	164	17.97	154	34.95	23.38
1878	222	23.12	251	50.00	33.14	201	20.94	224	47.93	29.77	156	16.66	147	32.10	21.73
1879	250	25.49	242	45.47	33.40	182	18.47	179	36.33	24.56	154	16.04	171	35.92	22.62
1880	192	19.15	179	49.08	24.53	154	15.23	171	33.55	21.37	197	19.99	168	33.94	24.66
1881	236	22.77	245	29.44	30.77	208	20.07	226	42.90	27.76	201	19.84	202	39.12	26.35
1882	230	21.70	214	36.01	27.63	165	15.54	176	32.65	21.17	141	13.57	163	30.36	18.23
1883	300	28.15	210	30.88	31.39	198	18.41	201	36.02	24.57	168	15.76	168	30.10	20.68
1884	223	20.44	202	36.19	25.50	245	22.40	199	34.46	26.64	236	21.67	190	32.90	25.56
1885	323	28.50	272	47.30	34.82	210	18.53	183	32.69	22.13	194	17.12	169	29.39	21.25
1886	218	18.64	222	38.06	25.14	220	18.86	308	34.80	24.17	247	21.17	192	32.91	25.09
1887	310	28.13	235	37.60	29.07	224	17.92	188	30.08	21.98	233	18.64	200	32.00	23.10
1888	272	19.20	243	36.45	24.75	264	18.63	279	41.85	26.06	214	15.10	210	31.50	20.35
1889	277	19.25	265	38.25	25.33	274	19.34	232	34.80	24.28	210	14.82	202	30.30	19.77
1890	252	17.79	237	35.55	23.47	220	15.53	203	30.42	20.30	248	17.51	195	29.25	21.26
1891	290	19.88	260	36.70	25.38	281	19.27	227	32.05	23.45	249	17.06	228	32.19	22.02
1892	472	29.09	363	48.40	35.16	307	18.90	222	29.60	22.32	296	18.22	230	30.66	22.14
1893	289	18.00	320	42.66	25.64	279	17.17	233	31.07	21.56	252	15.51	218	29.07	19.80
1894	302	19.75	283	37.90	25.95	235	15.36	190	26.21	18.51	273	17.80	180	24.82	20.09
1895	303	18.94	268	36.22	24.40	297	18.56	259	35.00	23.76	242	15.13	217	29.32	19.62
1896	334	20.08	344	46.48	28.92	334	20.08	231	31.21	24.12	204	12.07	206	27.84	17.52
Total.	6,040		5,653			5,140		4,645			4,613		4,081		
Mean.	274.5	22.87	256.9	42.14	29.28	233.7	19.32	211.1	36.17	24.64	209.7	17.26	185.5	32.63	22.26

Years.	October.					November.					December.				
	White.		Colored.			White.		Colored.			White.		Colored.		
	Deaths.	Annual death rate.	Deaths.	Annual death rate.	Annual death rate for total population.	Deaths.	Annual death rate.	Deaths.	Annual death rate.	Annual death rate for total population.	Deaths.	Annual death rate.	Deaths.	Annual death rate.	Annual death rate for total population.
1875	147	16.95	170	41.72	24.87	143	16.49	142	34.85	22.36	147	16.95	146	35.83	22.99
1876	164	18.44	167	39.40	25.20	135	15.19	119	28.08	19.34	165	18.55	133	31.38	22.69
1877	181	19.83	152	34.59	24.61	155	16.99	129	29.28	20.99	157	17.20	145	32.91	22.32
1878	185	19.76	146	31.88	23.74	155	16.56	141	30.79	21.23	169	18.05	152	33.19	23.02
1879	129	13.43	127	28.68	17.82	147	15.31	130	27.31	19.28	162	16.87	151	31.72	24.79
1880	188	19.08	176	35.55	24.59	162	16.44	134	27.07	20.00	211	21.41	129	26.65	22.97
1881	234	23.10	179	34.67	27.00	211	20.83	169	32.73	23.76	173	17.08	145	28.08	20.79
1882	180	17.32	176	32.78	22.50	162	15.59	154	28.69	20.05	183	17.61	137	25.32	20.20
1883	161	14.16	133	23.83	17.48	182	17.07	175	31.34	21.98	254	23.82	213	37.84	28.69
1884	193	17.72	175	30.30	22.08	204	18.73	148	25.63	21.12	188	17.26	177	30.65	21.90
1885	159	14.03	166	28.87	19.02	158	14.68	169	29.39	19.14	195	17.21	161	28.00	20.35
1886	221	18.94	188	32.23	23.37	194	16.63	166	28.40	20.57	192	16.43	154	26.34	19.77
1887	217	17.36	141	22.56	18.76	175	14.00	168	26.81	18.29	212	17.96	149	23.84	19.25
1888	227	16.02	201	30.15	20.54	189	13.34	148	22.20	16.17	208	14.68	142	21.30	17.98
1889	240	16.94	164	24.60	19.39	194	13.69	173	25.95	17.61	215	15.17	207	31.05	20.25
1890	240	16.94	187	28.05	20.49	216	15.25	164	24.60	18.27	249	17.58	202	30.30	21.64
1891	296	20.30	199	28.10	22.84	265	18.17	184	26.00	20.70	301	20.64	216	30.50	23.86
1892	283	17.38	224	29.87	21.34	242	15.00	182	24.27	21.36	278	17.10	215	28.66	20.76
1893	278	17.11	184	24.53	19.45	230	14.15	178	23.73	17.18	335	20.64	185	24.66	21.90
1894	246	16.04	236	32.55	21.38	231	15.06	178	24.55	18.14	260	17.00	196	27.04	20.23
1895	357	22.41	206	27.84	24.05	259	16.19	190	25.79	19.19	261	16.31	168	22.70	18.53
1896	284	17.05	192	25.94	20.40	236	14.70	163	22.02	16.88	265	16.50	162	21.90	18.24
Total.	4,800		3,889			4,245		3,503			4,771		3,685		
Mean.	218.2	17.74	176.8	30.17	21.77	192.9	15.91	162.2	27.25	19.70	216.9	17.81	167.5	28.66	21.99

TABLE XXI.—*Deaths and death rates for the last twenty-two fiscal years*—Continued.

Years.	January.					February.					March.				
	White.		Colored.			White.		Colored.			White.		Colored.		
	Deaths.	Annual death rate.	Deaths.	Annual death rate.	Annual death rate for total population.	Deaths.	Annual death rate.	Deaths.	Annual death rate.	Annual death rate for total population.	Deaths.	Annual death rate.	Deaths.	Annual death rate.	Annual death rate for total population.
1876	160	17.99	137	32.32	22.61	148	17.48	162	40.17	24.58	192	21.58	173	40.82	27.79
1877	182	19.94	147	33.36	24.31	172	20.47	175	43.14	27.86	199	21.81	168	36.24	27.12
1878	178	19.01	165	36.03	24.60	158	18.34	128	39.35	22.28	198	21.15	148	32.31	24.82
1879	212	22.97	162	34.03	26.04	161	18.21	174	39.70	25.33	180	18.74	197	41.38	26.24
1880	168	17.65	156	31.51	21.89	193	20.43	181	38.45	20.57	155	15.73	198	40.00	23.85
1881	202	19.98	138	26.81	22.29	176	18.91	186	39.25	25.73	187	18.50	185	35.95	24.39
1882	168	16.20	165	30.84	21.18	171	17.91	196	39.79	25.36	218	21.02	170	31.77	24.68
1883	182	17.29	158	28.87	21.25	170	17.54	158	31.59	22.27	236	22.42	196	35.81	27.00
1884	252	23.14	201	34.81	27.18	202	19.51	200	36.42	25.37	233	21.39	181	31.34	24.34
1885	196	18.00	182	31.52	22.68	232	23.13	213	40.06	29.00	253	23.23	214	37.05	28.02
1886	225	19.85	153	26.61	22.13	196	18.79	203	38.35	25.37	246	21.71	192	33.39	25.64
1887	210	16.80	159	25.44	19.68	165	13.20	145	23.20	20.42	213	17.04	170	27.20	20.42
1888	221	15.80	187	28.65	19.58	251	17.72	182	27.30	20.00	292	20.60	236	35.40	25.34
1889	222	15.67	208	31.20	20.64	206	14.54	177	25.30	18.38	260	18.35	210	31.50	22.56
1890	311	22.00	287	43.00	28.75	210	14.82	184	27.60	18.91	260	18.35	225	33.75	23.28
1891	220	15.08	194	27.39	19.10	235	16.11	179	25.27	23.72	306	20.98	286	40.40	27.32
1892	378	25.92	265	37.40	30.14	267	18.31	237	33.44	20.68	283	19.37	208	29.36	22.86
1893	301	18.71	231	30.80	22.56	245	15.08	216	28.80	19.44	353	21.72	238	31.62	24.84
1894	281	17.30	190	25.33	19.83	237	14.60	205	27.33	18.61	290	18.99	244	32.53	22.48
1895	270	17.60	178	24.55	19.87	275	18.00	200	27.60	21.07	291	19.00	224	30.89	23.84
1896	282	17.62	226	30.54	21.71	289	18.06	204	27.57	21.07	292	13.09	236	31.89	22.56
1897	291	18.20	201	27.16	21.00	312	19.50	216	29.17	22.56	280	17.50	218	30.00	21.34
Total	5,111	.....	4,090	.....	.....	4,671	.....	4,121	.....	.....	5,417	.....	4,418	.....	.....
Mean	232.3	18.68	185.9	30.83	22.68	212.3	17.98	187.3	34.13	22.66	246.2	19.63	200.8	34.12	24.98

Years.	April.					May.					June.				
	White.		Colored.			White.		Colored.			White.		Colored.		
	Deaths.	Annual death rate.	Deaths.	Annual death rate.	Annual death rate for total population.	Deaths.	Annual death rate.	Deaths.	Annual death rate.	Annual death rate for total population.	Deaths.	Annual death rate.	Deaths.	Annual death rate.	Annual death rate for total population.
1876	143	16.08	153	36.12	22.54	141	15.85	138	32.57	21.24	253	28.44	238	56.15	37.39
1877	148	16.22	145	32.91	21.65	156	17.10	132	29.96	21.28	187	20.49	201	45.62	28.67
1878	145	15.49	174	37.99	22.70	190	20.30	184	40.17	26.83	210	22.43	226	49.34	31.27
1879	176	18.33	158	33.19	23.25	148	15.41	148	31.09	20.61	231	24.05	213	44.74	30.91
1880	160	16.24	165	33.33	21.95	165	16.75	183	36.97	23.51	226	22.33	238	48.08	30.94
1881	191	18.90	194	37.69	25.24	175	17.31	121	23.51	19.40	170	16.82	150	29.15	20.98
1882	178	17.16	160	29.90	21.50	155	14.95	171	32.42	29.72	200	19.29	190	35.51	24.81
1883	219	20.81	162	29.60	23.81	203	19.29	153	27.75	22.25	199	18.91	169	30.88	23.00
1884	225	21.42	175	30.30	24.00	177	16.25	172	29.78	20.94	234	21.48	209	36.19	26.58
1885	210	19.28	220	38.10	25.80	181	16.62	207	35.84	23.28	248	22.77	261	45.19	30.54
1886	184	16.32	194	33.74	22.13	158	13.94	170	29.69	19.26	193	17.03	195	33.91	22.71
1887	182	14.56	173	27.68	18.93	159	12.72	172	27.52	17.65	262	20.96	237	37.92	26.61
1888	211	14.90	196	29.40	19.53	185	13.06	162	24.30	16.60	247	17.40	218	32.70	22.32
1889	213	15.03	189	28.35	19.29	182	12.84	164	24.60	16.60	256	18.07	228	34.20	23.23
1890	198	14.00	195	29.35	18.86	238	19.75	217	32.55	21.84	307	21.67	289	43.35	28.60
1891	387	26.54	310	43.76	32.17	227	15.54	230	32.47	21.10	306	20.98	247	34.87	25.53
1892	244	14.44	202	28.52	20.58	361	17.90	173	24.42	20.03	327	22.42	257	36.28	26.03
1893	282	17.33	200	26.66	20.40	259	15.94	214	28.53	19.92	356	21.91	240	22.00	24.96
1894	256	15.75	218	29.07	19.96	229	14.10	222	29.60	19.00	373	22.95	313	41.73	28.90
1895	275	18.00	210	28.99	21.52	229	14.93	178	24.55	18.05	227	14.80	198	31.31	18.87
1896	256	16.00	223	30.14	20.47	220	13.75	174	23.51	16.84	244	15.25	231	31.22	20.03
1897	226	14.12	189	25.54	17.76	205	12.81	175	23.65	16.20	245	15.50	224	30.27	20.04
Total	4,709	.....	4,205	.....	.....	4,243	.....	3,960	.....	.....	5,495	.....	4,972	.....	.....
Mean	214.0	17.11	191.1	31.93	21.54	192.9	15.78	180.0	29.40	20.55	249.8	19.82	226.0	37.77	26.04

II.—*Deaths of children under 1 year of age, by months, sex, and color, during twenty-one years, from July 1, 1875, to June 30, 1897.*

	July.					August.					September.				
	White.		Colored.		Total.	White.		Colored.		Total.	White.		Colored.		Total.
	M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.	
.....	58	57	50	55	220	37	43	32	37	149	25	17	34	36	112
.....	35	47	48	51	181	27	39	30	28	124	15	16	16	10	57
.....	21	27	29	31	108	37	28	43	41	149	14	13	26	27	80
.....	34	31	44	57	166	23	31	46	42	142	14	23	22	19	78
.....	57	54	66	43	220	27	27	48	27	129	22	14	26	24	86
.....	38	36	36	47	157	22	16	27	36	101	12	15	38	29	94
.....	47	46	65	62	220	38	30	35	45	148	32	28	29	31	120
.....	63	31	59	49	202	21	13	24	26	84	16	13	29	19	77
.....	46	68	56	46	216	28	22	42	38	130	14	27	24	25	90
.....	32	30	46	38	146	38	47	44	43	172	35	34	39	27	135
.....	49	57	59	56	221	24	25	36	35	120	26	16	21	28	91
.....	35	36	50	49	170	41	24	44	39	148	23	27	45	18	113
.....	63	54	44	58	219	35	27	31	40	133	27	27	29	36	119
.....	52	56	65	54	227	54	29	59	68	210	39	23	35	33	130
.....	43	44	47	47	181	41	42	45	45	173	23	21	28	28	100
.....	55	43	51	44	193	31	31	42	34	138	36	31	42	32	141
.....	54	47	57	58	216	37	30	41	36	144	28	27	34	32	121
.....	78	83	82	81	324	35	43	39	52	169	33	28	36	29	136
.....	55	53	84	75	267	42	44	43	45	174	42	18	35	35	130
.....	48	52	52	55	207	34	16	55	32	117	27	33	33	28	121
.....	55	64	81	55	255	56	35	57	35	183	38	26	33	33	130
.....	63	55	73	89	280	48	40	49	39	176	30	24	32	24	110
.....	1,081	1,071	1,244	1,200	4,596	776	682	892	863	3,213	571	501	686	613	2,371
f color..	2,152		2,444		.....	1,458		1,755		.....	1,072		1,299		.....
ales	2,325				.....	1,668				.....	1,257				.....
males ..	2,271				.....	1,545				.....	1,114				.....

	October.					November.					December.				
	White.		Colored.		Total.	White.		Colored.		Total.	White.		Colored.		Total.
	M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.	
.....	5	5	14	13	39	4	7	7	14	32	8	3	20	10	41
.....	14	9	30	25	78	12	6	16	19	53	11	10	24	27	72
.....	14	15	22	17	68	15	10	18	22	65	9	6	25	24	64
.....	11	14	25	18	68	13	5	32	18	68	19	10	24	16	69
.....	12	4	25	22	63	16	9	19	21	65	14	11	27	21	73
.....	20	8	28	24	80	15	5	19	23	62	16	9	20	27	72
.....	22	17	32	14	85	17	16	30	20	83	13	13	20	20	66
.....	24	23	24	26	97	11	12	25	19	67	9	14	23	17	63
.....	16	18	19	12	58	13	14	20	19	66	20	9	24	33	86
.....	15	20	30	21	86	19	14	21	19	73	22	11	25	21	79
.....	13	8	19	21	61	14	15	23	20	72	13	10	20	16	59
.....	27	23	35	26	111	13	11	25	22	71	23	7	21	14	65
.....	25	8	28	24	85	11	11	17	21	60	24	13	21	22	80
.....	17	26	27	30	100	23	15	13	23	74	12	23	32	27	93
.....	21	17	22	17	77	20	15	22	11	68	13	11	24	27	75
.....	23	16	21	26	86	18	18	19	23	78	27	15	22	28	92
.....	26	28	33	28	115	17	12	31	12	72	33	18	30	30	111
.....	33	18	40	27	117	20	14	26	22	82	25	15	29	27	96
.....	30	22	27	10	89	20	17	27	24	88	25	19	23	14	81
.....	24	20	29	31	104	17	15	24	16	72	22	14	23	17	76
.....	34	21	41	27	123	20	17	20	31	88	26	20	19	20	85
.....	26	19	20	21	86	19	17	21	24	81	21	21	19	12	73
.....	453	352	591	480	1,876	347	275	475	443	1,540	405	281	515	470	1,671
f color..	805		1,071		.....	622		918		.....	686		985		.....
ales	1,044				.....	822				.....	920				.....
males ..	832				.....	718				.....	751				.....

TABLE XXII.—*Deaths of children under 1 year of age, by months, sex, etc.*—Continued

Years.	January.					February.					March.				
	White.		Colored.		Total.	White.		Colored.		Total.	White.		Colored.		Tot
	M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.	
1876	6	8	15	13	42	12	6	17	10	55	11	10	25	12	
1877	20	18	24	18	80	19	18	28	22	97	25	17	24	19	
1878	13	12	30	24	79	18	7	20	12	57	23	16	22	15	
1879	22	10	29	24	85	13	12	23	28	76	27	15	33	23	
1880	18	19	16	20	71	21	22	26	22	91	13	13	25	26	
1881	11	18	15	20	64	20	12	19	34	85	14	15	25	26	
1882	7	11	25	21	64	11	7	23	32	73	16	14	36	24	
1883	22	7	23	29	81	15	3	26	23	67	9	19	26	21	
1884	18	16	31	29	94	19	9	18	25	71	17	11	24	25	
1885	19	10	27	18	74	21	11	30	31	93	25	15	30	20	
1886	24	17	16	29	86	25	5	29	17	86	13	19	25	21	
1887	16	15	24	20	75	9	4	21	14	48	24	15	26	24	
1888	17	12	33	28	90	18	11	29	24	82	20	20	42	25	
1889	27	12	34	29	102	13	15	29	22	79	36	30	32	21	
1890	23	16	33	34	106	15	13	24	24	76	25	13	30	19	
1891	13	12	24	24	73	23	17	25	20	85	18	18	29	29	
1892	45	25	54	39	163	24	19	35	31	109	25	20	23	24	
1893	24	20	41	41	126	26	22	32	37	117	35	23	38	35	
1894	25	19	32	16	92	19	16	31	26	92	31	22	33	29	
1895	24	18	22	25	89	20	16	31	20	87	28	28	22	29	
1896	26	12	30	29	97	29	18	26	21	94	29	20	32	29	
1897	28	23	27	20	98	26	20	18	33	97	28	19	33	27	
Total	446	330	605	550	1,931	416	293	560	548	1,817	482	391	665	523	2,
Total by color	776		1,155		.....	709		1,108		.....	873		1,188		...
Total males	1,051				.....	976				.....	1,147				...
Total females	880				.....	841				.....	914				...

Years.	April.					May.					June.					Gra tota by mont
	White.		Colored.		Total.	White.		Colored.		Total.	White.		Colored.		Total.	
	M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.		
1876	7	5	21	10	43	12	10	12	17	51	58	44	52	45	199	1,
1877	9	18	25	15	67	11	13	24	20	68	42	32	46	41	161	1,
1878	10	13	32	26	81	38	30	45	42	155	49	28	65	41	183	1,
1879	24	15	20	20	79	15	15	21	16	67	52	55	55	48	210	1,
1880	13	15	33	23	84	29	22	32	31	114	47	48	60	67	222	1,
1881	14	14	26	21	75	14	6	24	12	56	39	18	32	26	115	1,
1882	8	14	17	18	57	14	6	30	15	68	39	32	38	54	163	1,
1883	11	14	18	20	73	18	16	20	12	66	30	24	39	34	127	1,
1884	15	10	21	18	64	17	7	24	17	65	45	50	50	43	188	1,
1885	18	15	40	17	90	9	13	23	23	68	45	38	63	49	195	1,
1886	18	15	39	19	91	14	6	25	25	70	35	25	32	33	125	1,
1887	14	13	26	22	75	14	13	25	24	76	64	50	57	68	239	1,
1888	22	15	23	27	87	18	13	29	22	82	40	60	48	54	202	1,
1889	19	13	28	24	84	12	11	17	26	66	60	38	54	52	204	1,
1890	18	14	32	14	78	35	22	49	45	151	62	57	70	68	257	1,
1891	31	15	40	37	123	23	16	25	35	99	71	44	59	47	221	1,
1892	17	18	35	23	83	25	20	28	13	86	71	56	66	59	249	1,
1893	28	17	36	23	104	24	25	37	30	116	59	59	58	50	226	1,
1894	29	13	33	25	100	19	22	33	84	108	83	66	79	82	310	1,
1895	26	17	23	22	88	24	17	25	20	86	30	20	31	22	103	1,
1896	19	13	28	22	82	19	16	29	18	82	53	34	54	53	194	1,
1897	20	18	14	21	73	23	9	26	21	79	40	27	41	43	151	1,
Total	390	314	620	467	1,791	427	328	606	518	1,879	1,114	905	1,149	1,076	4,244	28,
Total by color	704		1,087		.....	755		1,124		.....	2,019		2,263		{W. C.	12, 16,
Total males	1,010				.....	1,033				.....	2,263				.....	12,
Total females	781				.....	846				.....	1,981				.....	16,

LE XXIII.—*Deaths of children under 5 years of age in the District of Columbia during seventeen fiscal years, less those by violence.*

July.			August.			September.			October.			November.			December.		
W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.
86	120	206	69	95	164	56	95	151	67	79	146	52	65	117	53	68	121
114	145	259	95	125	220	86	101	187	71	86	157	66	87	145	40	67	107
108	133	241	50	91	141	40	85	125	71	68	139	45	72	117	49	57	106
149	140	289	75	117	192	70	88	158	39	71	110	46	85	131	79	118	197
72	113	185	114	118	232	94	103	197	52	71	123	50	58	108	53	73	126
131	158	289	66	100	166	67	72	139	35	66	101	39	76	115	41	61	102
185	113	198	83	118	201	77	98	175	65	96	161	41	71	112	42	56	98
137	118	255	83	92	175	79	86	165	51	61	112	37	56	93	57	70	127
141	145	286	123	171	294	86	106	192	59	91	150	57	56	113	48	91	139
105	124	229	119	113	232	71	80	151	73	60	133	50	65	115	49	73	122
117	127	244	79	106	185	90	103	193	63	68	131	53	61	114	58	72	130
130	141	271	93	112	205	87	105	192	81	87	168	57	69	126	72	86	158
202	205	407	96	110	206	87	102	189	80	98	178	56	65	121	61	75	136
125	182	207	118	116	234	80	101	181	75	64	139	53	67	120	59	51	110
122	133	255	77	93	170	80	83	163	69	84	153	55	55	110	55	61	116
145	156	301	120	116	236	83	93	176	87	95	182	52	71	123	70	55	125
148	190	338	112	120	232	68	72	140	57	70	127	43	61	104	54	50	104
2, 117	2, 343	4, 460	1, 572	1, 913	3, 485	1, 301	1, 572	2, 874	1, 095	1, 315	2, 410	842	1, 142	1, 984	940	1, 184	2, 124

January.			February.			March.			April.			May.			June.		
W.	C.	T.	W.	C.	T.	W.	C.	T.	W	C.	T.	W.	C.	T.	W.	C.	T.
47	59	106	49	87	136	51	98	149	50	87	137	45	52	97	71	77	148
54	77	131	62	96	158	73	84	157	48	57	99	65	68	133	102	110	212
52	75	127	36	74	113	82	89	171	48	84	132	58	55	113	80	89	169
74	106	180	68	97	165	59	87	140	62	65	127	46	69	115	123	123	246
56	80	136	58	104	162	69	88	157	49	104	153	42	83	125	112	144	256
61	70	131	57	75	132	46	85	131	37	89	126	30	66	96	80	88	168
46	62	108	23	61	84	58	79	137	52	72	124	38	68	106	135	153	288
49	96	145	67	88	155	95	105	200	61	77	138	54	74	128	129	117	246
66	103	169	38	81	119	66	90	156	53	77	130	37	58	95	125	123	248
62	123	185	39	77	116	54	83	137	45	74	119	75	125	200	154	175	329
49	80	129	65	82	147	62	128	190	66	118	184	60	99	159	133	131	264
93	117	210	63	98	161	67	75	142	56	76	132	58	63	121	149	150	299
63	105	168	71	102	173	76	98	174	65	78	143	70	88	158	143	124	267
60	74	134	57	82	139	76	101	177	55	83	138	55	87	142	171	188	359
61	66	127	57	79	136	67	85	152	59	66	125	62	60	122	66	80	146
68	86	154	65	85	150	77	102	179	53	74	127	48	67	115	99	123	222
67	71	138	65	74	139	62	86	148	48	55	103	48	64	107	79	104	183
1, 028	1, 450	2, 478	943	1, 442	2, 385	1, 140	1, 557	2, 697	907	1, 330	2, 237	886	1, 246	2, 132	1, 951	2, 099	4, 050

TABLE XXIV.—*Percentage of deaths of those under 1 year old to total deaths of all ages; also to total births and to total deaths of those under 5 years of age, and total deaths per 1,000 inhabitants of children under 5 years of age, for twenty-two years, from July 1 1875, to June 30, 1897, inclusive.*

Years.	Total deaths of those under 1 year old.	Total deaths of all ages.	Percentage of deaths of those under 1 year old to total deaths of all ages.	Total births (reported), not including still-births.	Percentage of deaths of those under 1 year old to total births, not including stillbirths.	Total deaths of those under 5 years old.	Percentage of deaths of those under 1 year old to total deaths of those under 5 years old.	Total deaths per 1,000 inhabitants of those under 1 year old.	Percentage of deaths of those under 5 years old to total births, excluding stillbirths.	Total deaths per 1,000 inhabitants of those under 5 years of age.
1876	1,041	4,160	25.00	4,289	24.27	1,563	66.60	6.60	46.58	9
1877	1,133	4,208	26.92	3,811	29.73	1,856	61.01	6.97	48.70	11
1878	1,165	4,231	27.53	3,912	29.78	1,806	64.50	6.96	46.16	10
1879	1,206	4,309	27.98	3,816	31.60	2,020	59.70	6.99	52.93	11
1880	1,305	4,207	23.39	4,095	31.86	1,958	71.75	7.35	47.81	11
1881	1,041	4,136	25.17	3,595	28.96	1,678	62.04	5.68	43.00	9
1882	1,237	4,571	27.06	3,391	36.48	1,873	66.00	6.55	55.23	9
1883	1,079	4,286	25.18	3,116	34.95	1,669	65.25	5.67	53.56	9
1884	1,205	4,814	25.03	3,224	37.38	2,034	59.24	6.03	63.09	10
1885	1,301	4,998	26.03	3,334	39.05	1,957	66.48	6.55	58.69	9
1886	1,160	4,674	25.24	3,516	33.56	1,703	69.29	5.66	48.43	8
1887	1,280	4,665	27.43	3,728	34.33	1,791	71.47	6.09	48.04	8
1888	1,355	5,040	26.80	3,670	36.91	1,935	70.00	6.00	52.72	8
1889	1,468	5,152	28.49	4,001	36.69	2,089	70.27	5.87	52.21	8
1890	1,429	5,564	25.64	4,070	35.06	2,067	69.03	5.70	50.78	8
1891	1,433	5,720	25.00	4,344	32.97	2,070	69.22	5.73	47.44	8
1892	1,571	6,098	25.76	4,614	34.04	2,183	71.96	6.64	47.31	9
1893	1,744	6,452	27.50	4,458	39.79	2,361	75.56	6.23	52.96	9
1894	1,646	6,039	27.25	5,042	32.64	2,222	73.63	5.77	44.07	8
1895	1,257	5,565	22.57	4,797	26.20	1,775	70.82	4.67	37.00	6
1896	1,523	5,904	25.80	4,706	32.36	2,090	72.87	5.42	44.41	8
1897	1,411	5,737	24.59	4,575	30.85	1,853	76.14	5.00	40.52	7
Total	28,988	110,570	.....	88,104	.....	42,553	.....	.....	.....	.....
Mean	.....	.....	25.97	.....	33.16	.....	68.31	6.09	48.71	.....

TABLE XXV.—*Deaths of persons over 60 years of age, less those by violence.*

ırs.	July.			August.			September.			October.			November.			December.		
	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.
.....	29	18	47	20	18	38	39	21	60	44	18	62	27	16	43	45	21	66
.....	43	20	63	38	26	64	26	18	44	52	21	73	44	21	65	49	22	71
.....	34	21	55	31	22	53	26	25	51	31	29	60	29	17	46	37	21	58
.....	51	19	70	38	28	66	33	16	49	32	16	48	49	17	66	64	24	88
.....	41	31	72	29	25	54	32	16	48	46	17	63	46	26	72	39	31	70
.....	61	31	92	48	23	71	38	28	66	38	17	55	35	26	61	38	21	59
.....	49	31	80	42	27	69	64	25	89	44	17	61	47	26	73	47	25	72
.....	59	30	89	40	26	66	48	32	80	58	18	76	45	30	75	49	22	71
.....	52	24	76	43	22	65	33	16	49	39	21	60	37	22	59	59	22	81
.....	52	29	81	40	23	63	39	23	62	60	28	88	47	27	74	44	22	66
.....	41	26	67	36	19	55	49	17	66	52	29	81	65	19	84	76	35	111
.....	50	28	78	61	24	85	46	25	71	58	14	72	56	20	76	88	34	122
.....	88	38	126	81	24	105	62	25	87	72	33	105	65	24	89	67	35	102
.....	70	24	94	63	18	81	46	16	62	64	24	88	70	20	90	110	34	144
.....	71	33	104	60	18	78	57	19	76	55	27	82	53	23	76	70	29	99
.....	44	27	71	69	36	105	49	20	69	99	24	123	58	28	86	80	24	104
.....	69	29	98	109	118	227	37	24	61	69	28	97	70	19	89	84	21	105
Total.	904	459	1,363	848	497	1,345	724	366	1,090	913	381	1,294	843	381	1,224	1,046	443	1,489

ırs.	January.			February.			March.			April.			May.			June.		
	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.
.....	54	24	78	37	20	57	47	21	68	49	25	74	38	22	60	30	17	47
.....	56	21	77	37	36	73	53	17	70	43	32	75	38	25	63	30	24	54
.....	45	23	68	42	21	63	56	30	86	57	17	74	51	17	68	36	20	56
.....	50	24	74	53	22	75	64	25	89	53	30	83	32	20	52	34	17	51
.....	51	26	77	68	31	99	72	36	108	48	31	79	34	32	66	53	28	81
.....	50	17	67	51	43	94	68	30	98	56	26	82	42	28	70	39	21	60
.....	57	21	78	43	26	69	54	17	71	47	31	78	33	25	58	40	22	62
.....	68	30	98	66	22	88	72	29	101	52	19	71	56	22	78	39	27	66
.....	57	30	87	51	21	72	69	26	95	68	34	102	45	26	71	47	20	67
.....	77	33	110	64	20	84	67	35	102	53	27	80	53	26	79	52	25	77
.....	61	28	89	52	17	69	86	37	123	149	51	200	59	26	85	56	20	76
.....	120	54	174	75	33	108	86	28	114	76	25	101	65	25	90	62	15	77
.....	91	29	120	79	27	106	113	28	141	80	29	109	70	88	158	57	19	76
.....	89	24	113	80	26	106	90	34	124	86	28	114	48	17	65	71	40	111
.....	76	16	92	67	38	105	99	42	141	45	40	85	61	59	120	65	30	95
.....	84	33	117	80	38	118	87	34	121	88	29	117	66	24	90	54	22	76
.....	90	33	123	97	34	131	102	31	133	77	35	112	63	20	83	79	28	107
Total.	1,176	466	1,642	1,042	475	1,517	1,285	500	1,785	1,127	509	1,636	854	502	1,356	844	395	1,239

TABLE XXVI.—*Deaths from diarrheal diseases during twenty years, from January 1, 1877, to December 31, 1896, inclusive.*

Months.	1877.			1878.			1879.			1880.			1881.		
	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.
January	2	3	5	6	.....	6	6	1	7	3	2	5	3	2	
February	1	2	3	1	1	2	4	2	6	3	4	7	4	3	
March	6	3	9	6	2	8	.....	2	2	4	.....	4	3	.....	
April	.....	.....	.....	3	3	6	3	2	5	4	2	6	5	2	
May	3	1	4	32	19	51	7	2	9	15	18	33	5	5	
June	46	32	74	46	47	93	78	51	129	54	57	111	39	28	
July	59	83	142	33	76	109	72	73	145	33	42	75	72	70	
August	39	53	92	30	52	82	31	35	66	11	26	37	51	63	
September	16	16	32	7	15	22	17	30	47	11	17	28	40	32	
October	9	11	20	12	8	20	7	16	23	7	9	16	17	20	
November	4	5	9	3	1	4	2	6	8	4	4	8	12	10	
December	3	3	6	3	2	5	2	2	4	3	2	5	1	2	
Total	188	212	400	182	226	408	229	222	451	152	183	335	252	237	

Months.	1882.			1883.			1884.			1885.			1886.		
	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.
January	2	4	6	.....	1	1	1	.....	1	3	2	5	2	0	
February	4	2	6	2	.....	2	1	2	3	1	2	3	3	1	
March	6	1	7	1	3	4	3	5	8	2	4	6	3	.....	
April	4	4	8	2	3	5	3	1	4	.....	4	4	0	2	
May	5	3	8	5	3	8	1	7	8	3	2	5	3	1	
June	46	43	89	34	25	59	49	50	99	57	43	100	31	20	
July	64	80	144	69	61	130	40	46	86	71	71	142	46	46	
August	29	40	69	39	40	79	48	37	85	27	31	58	35	43	
September	5	26	31	9	23	32	35	31	66	19	14	33	19	15	
October	7	9	16	4	5	9	8	12	20	12	6	18	6	10	
November	6	7	13	5	6	11	5	7	12	2	4	6	11	4	
December	2	3	5	3	1	4	4	3	7	.....	2	2	2	3	
Total	180	222	402	173	171	344	198	201	399	197	185	382	161	135	

Months.	1887.			1888.			1889.			1890.			1891.		
	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.
January	2	0	2	4	0	4	2	0	2	2	2	4	4	2	
February	2	3	5	3	2	5	3	3	6	2	4	6	4	0	
March	3	0	3	3	2	5	4	1	5	2	2	4	0	0	
April	2	5	7	5	2	7	2	1	3	3	3	6	2	0	
May	0	9	9	1	4	5	2	3	5	16	22	38	4	4	
June	68	69	137	41	49	90	58	41	99	66	76	142	64	56	
July	68	63	131	76	65	141	65	57	122	41	46	87	65	67	
August	28	35	63	56	71	127	52	43	95	27	38	65	47	36	
September	18	15	33	25	32	57	11	24	35	22	26	48	21	31	
October	9	9	18	8	12	20	13	7	20	14	7	21	16	15	
November	.....	1	1	8	1	9	2	4	6	4	3	7	5	2	
December	7	2	9	2	2	4	2	1	3	1	2	3	6	5	
Total	207	211	418	232	242	474	216	185	401	200	231	431	238	218	

Months.	1892.			1893.			1894.			1895.			1896.			Total in 20 years.	Mean by month
	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.		
January	3	3	6	4	1	5	1	2	3	3	1	4	2	4	6	85	
February	2	2	4	6	2	8	2	2	4	5	3	8	1	2	3	96	
March	7	2	9	5	1	6	4	3	7	4	5	9	3	2	5	167	
April	2	1	3	3	3	6	4	4	8	3	3	6	1	2	3	98	
May	4	4	8	8	4	12	7	9	16	3	3	6	6	8	14	261	
June	72	61	133	64	45	109	97	80	177	28	21	49	50	34	84	2,016	
July	134	127	261	64	80	144	49	44	93	72	79	151	80	88	168	2,637	
August	45	47	92	48	36	84	16	35	51	43	46	89	37	46	83	1,502	
September	24	20	44	21	21	42	11	4	15	28	33	61	14	11	25	809	
October	13	12	25	14	9	23	8	10	18	18	16	34	10	5	15	430	
November	3	3	6	2	3	5	1	3	4	9	3	12	3	1	4	169	
December	2	2	4	5	1	6	4	2	6	5	3	8	3	1	4	104	
Total	311	284	595	244	206	450	204	198	402	221	216	437	210	204	414	8,394	

XXVII.—*Showing deaths from consumption, by sex, color, and months, for twenty-one calendar years ended December 31, 1896.*

	January.				February.				March.				April.				May.			
rs.	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
.....	28	13	6	11	18	14	19	18	17	14	6	12	17	9	16	18	8	14	9	13
.....	13	10	6	15	15	19	5	18	12	14	13	10	13	15	12	12	24	10	10	10
.....	14	33	20	24	13	19	13	13	18	18	19	15	14	18	20	16	7	14	10	17
.....	26	12	6	17	15	14	13	16	15	17	21	16	12	18	17	16	9	10	20	13
.....	18	11	18	21	22	18	16	28	14	15	30	19	16	18	14	19	11	22	15	25
.....	21	22	14	12	14	15	16	25	17	16	18	26	17	11	22	35	22	13	18	17
.....	15	11	14	26	20	11	20	16	24	25	15	20	15	18	13	23	15	17	18	17
.....	19	17	13	23	10	15	16	24	28	23	17	26	13	17	15	20	16	12	14	20
.....	22	28	12	30	16	14	27	23	16	16	16	16	14	24	8	27	24	8	22	23
.....	14	13	24	18	23	20	12	23	16	16	24	14	18	24	21	21	20	12	14	35
.....	19	14	13	23	13	15	13	21	17	21	21	20	14	12	22	20	16	12	14	24
.....	16	18	15	18	23	10	13	18	21	19	12	24	13	16	17	21	5	10	9	18
.....	13	18	8	13	20	18	14	17	21	19	5	30	14	13	13	33	9	11	9	21
.....	17	7	15	21	14	14	19	14	11	18	22	21	18	16	16	13	14	13	16	21
.....	16	20	21	20	14	16	19	14	22	15	18	20	17	13	19	17	23	5	14	11
.....	8	8	24	15	16	14	11	12	16	17	25	24	27	15	20	27	15	15	16	17
.....	16	18	17	15	15	12	20	23	14	8	15	18	16	11	22	11	17	4	18	13
.....	23	11	14	20	10	15	16	12	13	17	14	13	23	15	11	20	14	16	15	20
.....	14	12	21	12	8	11	17	17	20	14	20	18	15	16	13	16	18	17	17	19
.....	15	16	16	16	22	18	16	10	12	7	15	21	19	16	23	15	21	12	10	13
.....	16	13	9	18	23	8	23	15	21	17	15	15	20	20	17	24	11	16	14	17
tal ..	363	325	306	388	344	310	338	377	365	346	361	398	345	335	351	424	309	263	302	384

	June.				July.				August.				September.			
.	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
....	19	9	12	11	10	15	15	14	5	7	7	19	11	11	10	9
....	11	8	15	20	7	12	10	20	10	10	9	17	16	9	7	12
....	11	10	11	21	9	14	9	25	16	18	16	18	13	13	10	23
....	15	13	15	26	11	13	13	20	11	10	10	19	14	9	12	19
....	10	10	14	23	10	12	9	14	15	16	8	17	12	12	13	16
....	14	11	16	14	6	14	17	28	15	9	13	19	13	9	15	29
....	14	10	12	24	9	11	9	18	9	11	12	9	11	13	15	18
....	10	9	13	16	14	18	13	13	9	14	11	23	18	12	16	19
....	13	•16	16	22	19	20	14	16	17	16	14	9	14	13	10	18
....	9	11	10	24	14	20	18	22	11	15	11	23	16	15	14	20
....	14	11	26	25	13	14	13	18	12	12	15	14	19	12	14	13
....	9	12	16	13	9	13	12	21	8	14	7	14	14	20	12	22
....	5	15	13	11	10	9	17	6	15	5	10	23	14	7	15	25
....	9	11	17	15	12	8	20	23	14	13	19	22	9	8	16	17
....	12	14	14	19	3	12	12	14	13	12	9	17	13	22	12	11
....	14	8	19	15	16	7	13	13	13	12	17	17	13	15	14	10
....	13	14	17	14	14	16	19	13	10	16	15	11	7	10	7	18
....	15	9	13	16	8	7	17	17	10	5	5	17	12	12	16	20
....	7	11	9	11	14	11	12	13	13	3	10	12	12	9	9	11
....	19	7	16	8	10	10	17	17	8	13	13	17	17	7	17	6
....	10	13	16	26	17	18	23	16	13	18	16	8	11	14	20	25
al ..	253	232	310	374	235	274	302	361	247	249	247	345	279	252	274	261

Years.	October.				November.				December.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colo	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	
1876	14	14	12	13	17	13	9	21	14	13	7	13	178	146	128	
1877	14	17	8	24	12	13	13	9	18	17	13	14	165	154	121	
1878	9	18	7	10	14	23	8	10	18	15	15	15	156	201	158	
1879	9	13	4	13	14	9	16	16	16	20	11	17	167	158	158	
1880	18	14	14	21	17	11	9	18	17	20	8	14	180	179	166	
1881	17	18	15	17	22	1-	13	14	17	20	15	18	195	176	192	
1882	14	14	15	13	12	16	15	16	9	11	21	23	167	168	179	
1883	14	7	18	9	14	19	14	25	21	12	10	23	186	176	189	
1884	13	10	15	14	18	14	16	8	14	13	18	19	200	192	188	
1885	14	15	12	19	12	7	17	14	20	17	10	20	187	185	187	
1886	20	11	15	19	16	17	18	20	22	18	10	15	195	169	194	
1887	18	14	15	9	13	19	16	16	20	12	5	16	169	177	149	
1888	15	21	17	7	11	12	10	15	9	15	14	23	156	163	145	
1889	13	13	11	14	7	17	12	14	24	12	26	19	162	150	208	
1890	23	15	18	21	15	15	15	15	19	15	21	9	190	174	192	
1891	17	15	11	18	23	15	15	14	12	16	13	12	190	157	200	
1892	18	10	9	22	14	11	9	18	17	9	13	10	171	149	181	
1893	11	9	9	20	10	16	15	14	23	23	18	8	172	155	163	
1894	11	17	19	16	16	9	9	18	11	15	19	19	159	145	175	
1895	16	19	10	12	14	14	7	23	12	7	13	19	185	146	173	
1896	22	17	17	15	20	8	9	13	18	9	22	18	212	171	203	
Total ..	320	301	281	326	311	296	265	331	351	307	282	344	3,742	3,391	3,638	

TABLE XXVIII.—*Deaths from consumption, by ages, during eighteen years ende 30, 1897.*

Ages.	White.		Colored.	
	Male.	Female.	Male.	Female.
Under 1 year	37	48	112	112
1 to 2 years	20	27	107	126
2 to 3 years	11	10	88	96
3 to 4 years	5	7	45	56
4 to 5 years	2	2	39	41
Total deaths under 5 years	75	94	391	431
5 to 10 years	10	12	94	152
10 to 20 years	139	302	399	690
20 to 30 years	780	802	777	1,047
30 to 40 years	699	622	589	602
40 to 50 years	582	416	373	364
50 to 60 years	419	256	267	168
60 to 70 years	247	194	137	98
70 to 80 years	104	92	63	74
80 to 90 years	9	22	14	21
90 to 100 years and over	1	0	1	6
Total	3,065	2,812	3,025	3,653
Total by color	5,877		6,678	
Grand total	12,555			

XXIX.—*Total deaths from eighteen different diseases and suicides during twenty-two fiscal years, from July 1, 1875, to June 30, 1897.*

Diseases.	1876.					1877.					1878.				
	White.		Colored.		Total.	White.		Colored.		Total.	White.		Colored.		Total.
	M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.	
ption	171	135	108	165	579	159	149	121	174	603	154	180	153	202	689
l fever	29	33	22	14	98	24	30	11	17	82	38	29	20	14	101
y	30	32	22	20	104	40	34	12	24	110	33	24	10	22	89
	3	2	3	....	8	10	5	5	3	23	4	....	1	1	6
g of the brain	10	2	4	1	17	15	4	2	1	22	9	11	1	....	21
is, hemiplegia, paraplegia	5	6	4	5	20	9	5	6	7	27	17	19	10	7	53
	8	30	4	13	55	12	38	3	14	67	19	32	4	12	67
	8	4	5	4	21	7	5	1	3	16	2	3	....	2	7
s of the heart	49	36	27	40	152	48	43	33	19	143	38	45	23	31	137
s disease	14	7	7	5	33	17	5	2	1	25	18	5	6	7	36
tism	5	2	1	2	10	2	6	4	3	15	3	....	2	....	5
ms	3	1	4	1	9	....	....	2	....	2	5	....	1	1	7
pectoris	1	2	1	....	4	6	1	....	2	9	7	2	....	2	11
s	12	16	7	3	38	10	4	3	3	20	6	8	5	2	21
s of liver	8	2	1	....	11	8	2	....	2	12	1	2	1	....	4
	13	12	22	13	60	10	17	10	8	45	18	19	29	27	93
s	....	....	....	1	1	1	1	1	1	4	4	....	....	....	4
	4	1	3	1	9	1	1	2	....	4	2	1	1	....	4
	3	2	....	....	5	3	2	....	....	5	6	....	....	....	6

Diseases.	1879.					1880.					1881.				
	White.		Colored.		Total.	White.		Colored.		Total.	White.		Colored.		Total.
	M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.	
ption	171	183	157	205	716	166	168	173	239	746	194	173	163	229	759
l fever	27	18	19	10	74	20	23	19	22	84	24	20	13	10	67
y	24	21	15	16	76	30	15	10	16	71	40	23	19	17	99
	7	2	3	....	12	9	5	1	2	17	26	7	3	2	38
g of the brain	8	7	1	5	21	4	1	3	3	11	8	1	3	3	15
is, hemiplegia, paraplegia	22	12	7	9	50	28	23	10	21	82	28	17	9	14	68
	12	48	3	23	86	21	29	5	16	71	17	47	1	22	87
	4	2	1	1	8	3	....	2	4	9	5	2	4	1	12
s of the heart	49	30	21	25	125	43	33	23	28	127	43	38	36	33	150
disease	5	4	7	5	21	17	9	4	5	35	12	10	9	6	37
tism	....	4	3	4	11	5	2	4	2	13	10	7	3	4	24
ms	6	....	2	....	8	5	....	5	3	13	5	1	5	....	11
pectoris	4	....	2	....	6	2	3	2	3	10	5	3	....	....	8
s	8	4	3	5	20	9	6	3	7	25	12	11	2	2	27
s of liver	2	2	1	....	5	8	2	....	2	12	11	1	2	....	14
	23	24	31	27	105	11	17	22	10	60	7	12	11	12	42
s	5	1	1	1	8	3	1	....	....	4	3	1	....	....	4
	....	5	2	....	7	3	4	....	....	7	3	3	1	....	7
	4	3	....	....	7	16	3	2	....	21	7	4	....	....	11

Diseases.	1882.					1883.					1884.				
	White.		Colored.		Total.	White.		Colored.		Total.	White.		Colored.		Total.
	M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.	
ption	193	180	180	251	804	160	170	174	226	730	195	188	183	253	819
l fever	37	37	23	23	120	18	31	26	17	92	32	21	13	10	76
y	31	23	10	19	83	26	31	11	16	84	44	36	16	18	114
	28	4	4	7	43	31	8	6	6	51	32	6	12	6	56
g of the brain	6	5	4	2	17	6	3	....	3	12	8	5	....	2	15
is, hemiplegia, paraplegia	18	6	12	19	55	16	18	5	6	45	21	23	3	11	58
	21	34	8	17	80	17	36	7	19	79	22	44	4	20	90
y	6	3	7	5	21	7	1	4	1	13	2	....	3	....	5
s of the heart	74	44	28	39	185	78	58	33	36	205	78	51	33	60	222
s disease	21	15	10	11	57	12	9	7	5	33	22	11	10	6	49
tism	4	9	....	6	19	9	15	7	7	38	15	9	6	6	36
ms	3	2	2	....	7	6	....	2	2	10	5	4	2	2	13
pectoris	5	2	1	1	9	5	4	....	2	11	3	5	1	....	9
s	7	6	2	7	22	16	6	....	7	29	11	8	8	3	30
is of liver	4	4	1	....	9	6	3	1	....	10	2	2	....	2	6
	5	2	13	17	37	10	7	14	11	42	4	12	12	11	39
s	....	1	....	....	1	5	....	....	1	6	3	1	....	....	4
	....	2	3	....	5	3	2	....	1	6	3	3	2	....	8
	10	3	1	1	15	16	3	1	1	21	10	1	1	....	12

TABLE XXIX.—*Total deaths from eighteen different diseases and suicides during twenty-two fiscal years, from July 1, 1875, to June 30, 1897*—Continued.

Diseases.	1885.					1886.					1887.				
	White.		Colored.		Total.	White.		Colored.		Total.	White.		Colored.		Total.
	M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.	
Consumption	195	182	192	219	788	180	174	191	251	796	189	169	167	211	736
Typhoid fever	48	35	14	27	124	46	35	24	23	128	32	40	24	20	116
Apoplexy	43	24	24	10	101	40	34	22	29	125	46	32	17	20	115
Insanity	57	13	17	7	94	68	16	11	6	101	52	13	18	9	92
Softening of the brain	7	5	2	1	15	9	5	1	2	17	8	5	2	1	16
Paralysis, hemiplegia, paraplegia	20	27	9	17	73	19	17	13	15	64	12	10	14	10	46
Cancer	25	61	10	23	119	27	53	4	19	103	25	55	8	26	114
Epilepsy	3	1	1	3	8	4	2	1	2	9	2	2	2	2	8
Diseases of the heart	65	78	40	52	235	72	48	41	74	235	66	77	45	53	241
Bright's disease	25	9	10	9	53	19	13	13	8	53	19	14	7	9	49
Rheumatism	11	10	7	6	34	21	6	4	3	34	13	13	3	7	36
Aneurisms	2	1	8	....	11	8	....	2	2	12	3	1	1	....	5
Angina pectoris	4	2	1	....	7	4	1	1	1	7	3	1	1	....	5
Gastritis	13	10	4	4	31	11	16	5	5	37	14	10	5	5	34
Cirrhosis of liver	9	5	1	....	15	9	5	2	1	17	10	3	1	1	15
Dropsy	10	8	8	11	37	9	5	11	13	38	4	8	8	10	30
Diabetes	6	3	1	....	10	5	6	1	....	12	7	3	2	1	13
Hernia	1	....	4	....	5	4	2	2	....	8	2	1	2	1	6
Suicides	11	2	....	....	13	13	1	2	1	17	17	4	2	1	24

Diseases.	1888.					1889.					1890.				
	White.		Colored.		Total.	White.		Colored.		Total.	White.		Colored.		Total.
	M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.	
Consumption	164	186	129	223	702	157	148	188	204	697	183	154	209	210	756
Typhoid fever	47	48	37	36	168	53	43	41	33	170	66	52	43	47	208
Apoplexy	66	30	19	23	138	46	22	22	26	116	48	28	14	23	113
Insanity	77	16	13	11	117	72	18	10	10	110	74	20	18	11	123
Softening of the brain	4	5	1	....	10	9	6	4	1	20	9	6	7	1	23
Paralysis, hemiplegia, paraplegia	16	18	17	12	63	20	22	14	20	76	18	24	10	17	69
Cancer	27	47	4	22	100	26	73	2	18	119	26	66	6	23	121
Epilepsy	6	6	4	2	18	....	3	4	1	8	4	5	5	1	15
Diseases of the heart	81	68	58	66	273	93	61	49	64	267	94	66	51	62	273
Bright's disease	18	17	10	15	60	20	6	8	5	39	23	12	16	7	58
Rheumatism	17	18	5	13	53	14	11	6	3	34	10	11	8	6	35
Aneurisms	5	2	4	2	13	3	2	3	2	10	6	1	3	2	12
Angina pectoris	1	2	....	2	5	2	1	1	2	6	5	1	....	1	7
Gastritis	18	15	2	6	41	14	16	4	9	43	13	17	6	7	43
Cirrhosis of liver	9	4	2	1	16	9	....	2	1	12	13	3	1	....	17
Dropsy	8	7	6	10	31	4	7	6	8	25	7	8	11	5	31
Diabetes	2	3	1	1	7	5	5	1	1	12	5	3	....	1	9
Hernia	2	1	1	....	4	3	....	6	....	9	5	6	1	1	13
Suicides	13	5	....	....	18	14	....	1	....	15	20	1	1	....	22

Diseases.	1891.					1892.					1893.				
	White.		Colored.		Total.	White.		Colored.		Total.	White.		Colored.		Total.
	M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.	
Consumption	182	168	202	197	749	185	157	194	178	714	178	155	155	193	681
Typhoid fever	64	65	40	39	208	70	37	39	37	183	82	40	36	39	197
Apoplexy	40	32	13	25	110	66	38	19	26	149	88	66	26	20	200
Insanity	74	17	9	10	110	31	11	4	5	51	22	12	8	5	47
Softening of the brain	6	1	4	3	14	10	7	7	2	26	8	3	5	2	18
Paralysis, hemiplegia, paraplegia	22	23	11	28	84	35	40	22	24	121	28	20	18	21	87
Cancer	31	59	10	31	131	35	52	6	18	111	41	75	9	27	152
Epilepsy	12	3	4	7	26	13	2	5	2	22	13	6	9	12	40
Diseases of the heart	101	81	69	73	324	102	95	65	65	327	116	87	70	72	345
Bright's disease	29	20	9	5	63	23	20	14	12	69	33	16	10	4	63
Rheumatism	18	11	8	12	49	11	13	10	17	51	16	15	10	10	51
Aneurisms	7	1	1	1	10	9	2	5	....	16	9	8	3	3	23
Angina pectoris	11	2	....	1	14	10	3	1	2	16	6	6	2	3	17
Gastritis	13	11	6	9	39	18	23	4	8	53	8	8	12	6	34
Cirrhosis of liver	5	1	1	....	7	18	3	1	1	23	25	9	4	....	38
Dropsy	9	10	8	15	42	4	10	12	6	32	7	6	13	11	37
Diabetes	7	5	1	1	14	1	7	....	2	10	10	4	1	1	16
Hernia	1	4	....	1	6	4	....	5	....	9	3	4	3	1	11
Suicides	27	6	1	2	36	17	6	1	1	25	34	2	1	....	37

XXIX.—*Total deaths from eighteen different diseases and suicides during twenty-two fiscal years, from July 1, 1875, to June 30, 1897*—Continued.

Diseases.	1894.					1895.				
	White.		Colored.		Total.	White.		Colored.		Total.
	M.	F.	M.	F.		M.	F.	M.	F.	
ption	156	153	177	189	675	185	140	174	172	671
fever	76	45	29	41	191	62	56	33	36	187
y	65	53	29	23	170	68	50	21	30	169	
	26	8	2	7	43	23	8	2	4	37
g of the brain	6	4	2	2	14	8	9	5	1	23
s, hemiplegia, paraplegia	31	28	14	21	94	29	17	19	33	98
	47	52	13	19	131	40	72	5	23	140
	22	2	7	1	32	16	5	9	5	35
of the heart	107	89	71	61	328	123	69	63	89	344
disease	19	8	12	10	49	11	16	8	3	38
tism	10	7	2	6	25	15	12	7	7	41
ms	2	.....	5	1	8	3	.....	2	.....	5
pectoris	7	6	1	.....	14	9	4	5	6	24
s	14	24	7	5	50	16	14	6	4	40
s of liver	24	11	3	4	42	13	6	3	3	25
	12	7	4	7	30	2	5	3	7	17
	8	3	2	1	14	7	5	.....	2	14
	3	5	6	.....	14	1	6	9	.....	16
	31	6	2	2	41	26	5	2	1	34

Diseases.	1896.					1897.				
	White.		Colored.		Total.	White.		Colored.		Total.
	M.	F.	M.	F.		M.	F.	M.	F.	
ption	178	157	171	199	705	208	157	205	206	776
fever	78	60	45	45	228	51	36	29	31	147
y	88	51	30	40	209	82	56	29	38	205
	32	16	5	.....	53	36	10	6	4	56
g of the brain	7	2	3	1	13	4	2	3	1	10
s, hemiplegia, paraplegia	19	30	12	13	74	13	11	11	8	43
	31	84	10	30	155	42	56	9	37	144
y	14	5	7	5	31	11	4	7	4	26
s of the heart	125	107	82	80	394	128	101	85	86	400
disease	63	49	32	35	179	93	54	51	39	237
tism	12	6	7	9	34	9	13	6	3	31
ms	7	2	4	1	14	3	.....	5	.....	8
pectoris	9	4	2	1	16	10	2	1	2	15
s	9	15	1	6	31	10	12	7	5	34
is of liver	15	7	1	3	26	12	3	7	2	24
	2	7	3	3	15	.....	.....	.....	2	2
s	4	6	2	1	13	3	4	4	1	12
	.....	2	1	.....	3	3	2	5	1	11
	30	5	1	2	38	36	4	5	2	47

TABLE XXX.—*Deaths from cancers, by color, sex, and nativity, from September 1, 1874, t June 30, 1897.*

Cancer of—	Color.	Sex.	Nativity.										
			District of Columbia.	Other parts of the United States.	Ireland.	England.	Scotland.	Germany.	France.	Italy.	Canada.	Other countries.	Total.
Breast	White	Female	42	142	33	6	1	6	....	....	....	4	2
	Colored	Male	1	2	....	....	....	....	....	....	....	....	
		Female	18	92	....	....	....	....	....	....	....	....	1
Uterus	White	Female	71	252	42	16	2	27	3	2	2	7	4
	Colored	Female	34	170	....	....	....	....	....	....	....	....	2
Ovary	White	Female	6	9	2	....	....	....	2	....	....	....	
	Colored	Female	1	5	....	....	....	....	....	....	....	....	
Stomach	White	Male	18	71	35	6	1	34	2	2	....	5	1
		Female	28	69	25	7	....	15	1	....	....	2	
	Colored	Male	9	49	....	....	....	....	....	....	....	....	
		Female	11	61	....	....	....	....	....	....	....	....	
Liver	White	Male	16	33	4	....	....	15	....	....	2	4	
		Female	21	40	5	4	....	10	....	....	....	4	
	Colored	Male	2	17	....	....	....	....	....	....	....	....	
		Female	....	13	....	....	....	....	....	....	....	....	
Face, head, neck, mouth, and throat.	White	Male	26	78	27	6	2	11	2	....	....	3	
		Female	12	29	12	....	1	5	....	....	....	3	
	Colored	Male	2	16	....	....	....	....	....	....	....	....	
		Female	1	14	....	....	....	....	....	....	....	....	
All others	White	Male	21	98	25	7	1	25	1	....	....	2	
		Female	45	112	15	3	1	17	1	1	....	2	
	Colored	Male	5	33	....	....	....	....	....	....	....	....	
		Female	6	57	....	....	....	....	....	....	....	....	
Total	White	Male	81	280	91	19	4	85	5	2	2	14	
		Female	225	653	134	36	5	80	7	3	2	22	
	Colored	Male	19	117	....	....	....	....	....	....	....	1	
		Female	70	413	....	....	....	....	....	....	....	....	
Grand total			395	1,463	225	55	9	165	12	5	4	37	
Total by sex		Male	100	397	91	19	4	85	5	2	2	15	
		Female	295	1,066	134	36	5	80	7	3	2	22	
Total by color	White		306	933	225	55	9	165	12	5	4	36	
	Colored		89	530	....	....	....	....	....	....	....	....	

TABLE XXXI.—*Deaths from cancers of white females from September 1, 1874, to 30, 1897.*

Cancer of—	Married.		Widows.		Single.		To dea fr can whi ma
	Deaths from cancers.	Percentage to total deaths of married.	Deaths from cancers.	Percentage to total deaths of widows.	Deaths from cancers.	Percentage to total deaths of single.	
Breast	95	16.38	88	21.73	51	28.02	
Uterus	264	45.52	130	32.10	30	16.49	
Ovary	11	1.89	6	1.48	2	1.10	
Stomach	51	8.79	63	15.56	32	17.58	
Liver	42	7.24	28	6.91	14	7.69	
Face, head, neck, mouth, and throat	21	3.62	28	6.91	13	7.14	
All others	96	16.56	62	15.31	40	21.98	
Total	580	100.00	405	100.00	182	100.00	

XII.—*Deaths from cancers of colored females from September 1, 1874, to June 30, 1897.*

r of—	Married.		Widows.		Single.		Total deaths from cancers, colored females.
	Deaths from cancers.	Percentage to total deaths of married.	Deaths from cancers.	Percentage to total deaths of widows.	Deaths from cancers.	Percentage to total deaths of single.	
.....	38	18.27	58	27.63	14	21.54	110
.....	97	46.64	85	40.48	22	33.85	204
.....	4	1.93	2	.96	.....	.....	6
.....	26	12.50	34	16.29	11	16.92	71
.....	6	2.89	6	2.72	1	1.54	13
eck, mouth,							
.....	7	3.37	4	1.92	5	7.69	16
.....	30	14.40	21	10.00	12	18.46	63
.....	208	100.00	210	100.00	65	100.00	463

XIII.—*Deaths from cancers, by age, color, and sex, with percentages, from September 1, 1874, to June 30, 1897.*

ges.	Color.	Sex.	Cancer of breast.	Cancer of uterus.	Cancer of ovary.	Cancer of stomach.	Cancer of liver.	Cancer of face, head, neck, mouth, and throat.	All other cancers.	Total.
	White	Male.....	.....	.....	.....	1	2	5	9	.....
rs.....		Female ...	1	1	.....	.....	1	4	9	.....
	Colored ...	Male.....	1	.....	.....	1	.....	1	2	.....
		Female ...	.....	.....	.....	2	.....	1	2	.....
	White	Male.....	.....	.....	.....	1	1	3	5	.....
.....		Female ...	.....	5	3	6	1	2	9	.....
	Colored ...	Male.....	.....	.....	.....	3	2	1	5	.....
		Female ...	2	10	1	3	.....	1	6	.....
	White	Male.....	.....	.....	.....	6	7	4	12	.....
.....		Female ...	14	69	2	8	8	.....	20	.....
	Colored ...	Male.....	1	.....	.....	4	.....	1	2	.....
		Female ...	12	46	3	8	2	1	9	.....
	White	Male.....	.....	.....	.....	30	11	23	22	.....
.....		Female ...	58	130	3	18	18	5	39	.....
	Colored ...	Male.....	.....	.....	.....	19	3	4	5	.....
		Female ...	21	50	.....	14	2	5	16	.....
	White	Male.....	.....	.....	.....	54	30	37	46	.....
.....		Female ...	75	109	4	38	23	11	58	.....
	Colored ...	Male.....	.....	.....	.....	15	7	5	13	.....
		Female ...	29	55	2	12	4	2	8	.....
	White	Male.....	.....	.....	.....	42	13	40	53	.....
.....		Female ...	52	71	5	44	21	15	45	.....
	Colored ...	Male.....	.....	.....	.....	10	4	5	5	.....
		Female ...	23	22	.....	15	2	3	15	.....
	White	Male.....	.....	.....	.....	30	8	32	27	.....
.....		Female ...	32	30	2	28	11	11	18	.....
	Colored ...	Male.....	.....	.....	.....	7	2	1	3	.....
		Female ...	13	17	.....	12	2	1	6	.....
	White	Male.....	.....	.....	.....	10	2	12	5	.....
.....		Female ...	3	7	.....	4	1	12	1	.....
	Colored ...	Male.....	1	.....	.....	1	.....	1	3	.....
		Female ...	9	4	.....	5	1	2	2	.....
	White	Male.....	.....	.....	.....	.....	.....	.....	.....	.....
over.		Female ...	.....	2	.....	.....	.....	.....	.....	.....
	Colored ...	Male.....	.....	.....	.....	.....	.....	.....	.....	.....
		Female ...	.....	.....	.....	.....	.....	.....	.....	.....
	White	Male.....	.....	.....	.....	175	74	155	179	583
.....		Female ...	235	424	19	146	84	60	199	1,167
	Colored ...	Male.....	3	.....	.....	59	19	19	37	137
		Female ...	109	204	6	71	13	16	64	483
total	.....	.....	347	628	25	451	190	250	479	2,370
o total deaths rs.	.....	.....	14.64	26.49	1.06	19.03	8.02	10.55	20.21	100.00

TABLE XXXIV.—*Deaths from cancers, by color, sex, and age; total deaths from all causes, and deaths from all causes to 1 of cancer, from September 1, 1874, to June 30, 1897.*

Cause of death.	White.			Colored.			Grand total.
	Male.	Female.	Total.	Male.	Female.	Total.	
Under 20 years:							
Deaths from cancers	16	17	33	5	5	10	43
Deaths from all causes	12,006	11,061	23,067	14,786	14,626	29,412	52,479
Deaths from all causes to 1 from cancer	750	650	699	2,957	2,925	2,941	1,220
20 to 30 years:							
Deaths from cancers	10	26	36	11	22	33	69
Deaths from all causes	2,456	2,528	4,984	2,020	2,574	4,603	9,587
Deaths from all causes to 1 from cancer	245	97	138	184	117	139	138
30 to 40 years:							
Deaths from cancers	29	120	149	8	82	90	239
Deaths from all causes	2,718	2,448	5,166	1,679	2,007	3,686	8,852
Deaths from all causes to 1 from cancer	93	20	34	209	24	40	37
40 to 50 years:							
Deaths from cancers	84	273	357	31	108	139	496
Deaths from all causes	3,260	2,210	5,470	1,755	1,637	3,392	8,862
Deaths from all causes to 1 from cancer	38	8	15	56	15	24	17
50 to 60 years:							
Deaths from cancers	167	318	485	39	112	151	636
Deaths from all causes	3,551	2,268	5,819	1,549	1,319	2,868	8,687
Deaths from all causes to 1 from cancer	21	7	.....	39	11	18	13
60 to 70 years:							
Deaths from cancers	151	251	402	24	80	104	506
Deaths from all causes	3,418	2,480	5,898	1,222	1,227	2,449	8,347
Deaths from all causes to 1 from cancer	22	9	12	50	15	23	16
70 to 80 years:							
Deaths from cancers	97	132	229	13	51	64	293
Deaths from all causes	2,650	2,391	5,041	980	1,089	2,069	7,110
Deaths from all causes to 1 from cancer	27	18	22	75	21	32	24
80 years and over:							
Deaths from cancers	29	30	59	6	23	29	88
Deaths from all causes	968	1,444	2,412	621	1,149	1,770	4,182
Deaths from all causes to 1 from cancer	33	48	40	103	49	61	47
Total deaths from cancers	583	1,167	1,750	137	483	620	2,370
Total deaths from all causes	31,027	26,830	57,857	24,621	25,628	50,249	108,106
Deaths from all causes to 1 from cancer	53	22	33	179	53	81	41

TABLE XXXV.—*Stillbirths, including legitimate and illegitimate, with percentages of each to stillbirths, and of illegitimate to total illegitimate stillborn, by color, for nineteen years, from 1879 to 1897, inclusive.*

Years.	Number of stillborn.	Color.		Legitimate.		Illegitimate.		Percentage of legitimates to total stillbirths, by color.		Percentage of illegitimates to total stillbirths, by color.		Percentage of illegitimate stillborn to total illegitimate stillborn, by color.	
		White.	Colored.	White.	Colored.	White.	Colored.	White.	Colored.	White.	Colored.	White.	Colored.
1879	395	130	265	112	171	18	94	28.4	43.3	4.56	23.8	16.0	84.0
1880	358	119	239	105	159	14	80	29.3	44.4	3.90	22.3	14.9	85.1
1881	370	141	229	125	143	16	86	33.8	38.6	4.30	23.0	15.7	84.3
1882	351	140	211	124	146	16	65	35.3	41.5	4.66	18.6	19.7	80.3
1883	362	154	208	136	139	18	69	37.5	38.4	5.07	19.0	20.7	79.3
1884	351	132	219	123	141	9	78	35.0	40.2	2.57	22.2	10.3	89.7
1885	391	179	212	154	127	25	85	39.4	32.5	6.40	21.7	22.7	77.3
1886	406	164	242	149	138	15	104	40.4	34.9	3.70	25.6	12.6	87.4
1887	406	149	257	127	146	22	111	31.3	36.0	5.40	27.3	16.6	83.4
1888	458	182	276	156	155	26	121	34.1	33.0	5.68	26.4	17.7	82.3
1889	443	157	286	137	163	20	123	30.9	36.8	4.51	28.0	14.0	86.0
1890	474	183	291	172	181	11	110	36.3	34.2	2.32	23.2	9.1	91.0
1891	440	172	268	154	157	18	111	35.0	35.7	4.09	25.2	14.0	86.0
1892	467	182	285	169	180	13	105	36.2	38.6	2.78	22.5	11.0	88.9
1893	475	161	314	144	180	17	134	30.3	37.9	3.58	28.2	11.2	88.8
1894	562	204	358	183	255	21	103	32.6	45.4	3.74	18.3	16.9	83.1
1895	540	201	339	173	172	28	167	32.4	31.8	5.20	30.9	14.4	85.6
1896	520	181	339	153	172	28	167	29.4	33.8	5.38	32.1	14.4	85.6
1897	487	187	300	154	180	33	120	31.6	36.9	6.77	24.7	21.6	78.4
Total and mean.	8,256	3,118	5,138	2,750	3,105	368	2,033	33.6	37.5	4.45	24.4	15.4	84.6

XXXVI.—*Legitimate and illegitimate births, with percentages of births to deaths, illegitimate births to births, of illegitimacy to births, and of illegitimacy to total illegitimacy, by color, for nineteen years, from 1879 to 1897, inclusive.*

Years.	Number of deaths.	Number of births.	Births, by color.		Legitimate.		Illegitimate.		Per cent of births to deaths.	Per cent of still-births to births.
			White.	Colored.	White.	Colored.	White.	Colored.		
.....	4,309	3,816	2,117	1,699	2,068	1,403	49	299	88.5	10.4
.....	4,206	4,095	2,297	1,798	2,241	1,456	56	342	97.3	8.8
.....	4,136	3,595	2,014	1,581	1,961	1,274	53	307	86.9	10.2
.....	4,571	3,391	1,800	1,591	1,747	1,277	53	314	74.2	10.4
.....	4,286	3,116	1,684	1,432	1,631	1,132	53	300	72.7	11.6
.....	4,814	3,224	1,747	1,477	1,684	1,196	63	281	66.9	10.9
.....	4,998	3,334	1,861	1,473	1,805	1,136	56	337	66.7	11.8
.....	4,674	3,516	1,981	1,535	1,916	1,184	65	351	75.2	11.5
.....	4,665	3,728	2,092	1,636	2,022	1,288	70	348	79.9	10.9
.....	5,040	3,670	2,039	1,635	1,964	1,262	71	373	72.8	12.5
.....	5,152	4,001	2,176	1,825	2,098	1,397	78	428	77.6	11.0
.....	5,564	4,070	2,246	1,824	2,171	1,341	75	483	73.1	11.6
.....	5,720	4,344	2,512	1,831	2,440	1,371	73	460	75.9	10.1
.....	6,098	4,614	2,648	1,966	2,581	1,447	67	519	75.6	10.1
.....	6,452	4,458	2,585	1,873	2,512	1,368	73	505	69.1	10.6
.....	6,039	5,042	3,007	2,035	2,930	1,496	77	539	83.5	11.0
.....	5,565	4,794	2,878	1,916	2,774	1,396	104	520	86.1	11.3
.....	5,904	4,706	2,876	1,920	2,686	1,403	100	517	79.7	11.0
.....	5,737	4,573	2,761	1,812	2,665	1,335	96	477	79.7	10.6
and mean.	97,930	76,087	43,318	32,859	41,896	25,159	2,332	7,700	72.0	10.8

Years.	Per cent of illegitimacy to total births.	Per cent of legitimacy to total births, by color.		Per cent of illegitimacy to total births, by color.		Per cent of illegitimacy to total illegitimacy, by color.		Per cent of white illegitimacy to white births, and colored illegitimacy to colored births.	
		White.	Colored.	White.	Colored.	White.	Colored.	White.	Colored.
.....	12.5	54.2	36.7	1.31	7.83	14.0	86.0	2.32	17.60
.....	12.0	54.7	35.6	1.38	8.35	14.0	86.0	2.43	19.02
.....	12.9	54.6	35.4	1.47	8.54	14.8	85.2	2.33	19.42
.....	12.3	51.5	37.7	1.60	9.26	14.4	85.3	2.09	19.73
.....	14.1	52.4	36.3	1.74	9.63	15.0	85.0	3.14	20.95
.....	13.4	52.2	37.1	2.00	8.70	18.3	81.7	3.60	19.02
.....	15.0	54.1	34.7	1.68	10.18	14.3	85.2	3.00	22.83
.....	15.2	54.5	33.7	1.85	9.98	15.6	84.4	3.28	22.86
.....	14.8	54.3	34.5	1.83	9.33	16.7	83.3	3.34	21.27
.....	16.1	53.5	34.4	1.93	10.16	16.0	84.0	3.49	22.18
.....	12.7	52.4	34.9	1.93	10.70	15.4	84.6	3.59	23.45
.....	13.7	53.3	33.0	1.84	11.90	13.4	86.6	3.34	26.50
.....	12.3	56.1	31.5	1.68	10.70	13.7	86.3	2.90	25.12
.....	12.7	55.9	31.2	1.45	11.25	11.4	88.6	2.53	26.40
.....	12.9	56.3	30.6	1.64	11.30	12.6	87.4	2.82	27.00
.....	12.2	58.1	29.6	1.53	10.69	12.5	87.5	2.56	26.46
.....	13.0	57.8	29.2	2.17	10.85	16.7	83.3	3.61	27.14
.....	13.1	57.0	29.8	2.13	10.99	16.2	83.8	3.48	26.93
.....	12.5	58.3	29.2	2.10	14.30	16.8	83.2	3.48	35.73
and mean.	13.2	54.5	33.4	1.73	10.25	14.9	85.1	3.01	24.72

TABLE XXXVII.—*Deaths from pneumonia during twenty-two years, from July 1, 1875, to June 30, 1897, inclusive, by years, months, and color.*

Years.	July.			August.			September.			October.			November.			December.		
	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.
1875-76	3	3	6	7	11	18	3	6	9	9	15	24	12	16	28	22	20	42
1876-77	4	3	7	5	6	11	3	11	14	8	8	16	9	13	22	15	16	31
1877-78	....	6	6	2	5	7	1	4	5	3	10	13	7	15	25	6	20	26
1878-79	7	13	20	7	10	17	9	10	19	6	10	16	11	20	31	12	17	29
1879-80	5	3	8	6	11	17	4	12	16	4	5	9	17	9	26	11	18	29
1880-81	5	13	18	2	9	11	2	5	7	2	10	12	10	10	20	17	19	36
1881-82	2	4	6	3	7	10	2	5	7	5	6	11	11	9	20	10	29	39
1882-83	2	7	9	2	9	11	5	4	9	4	7	11	12	16	28	18	15	33
1883-84	1	6	7	3	4	7	2	4	6	7	11	18	10	14	24	24	29	53
1884-85	3	5	8	2	3	5	2	4	6	3	7	10	17	12	29	10	14	24
1885-86	5	4	9	2	4	6	7	1	8	5	5	10	4	12	16	11	8	19
1886-87	3	5	8	5	7	12	4	7	11	6	5	11	9	11	20	16	20	36
1887-88	2	3	5	2	2	4	5	9	14	6	6	12	15	8	23	15	12	27
1888-89	3	2	5	2	8	10	4	6	10	10	13	23	10	10	20	23	24	47
1889-90	2	2	4	4	2	6	....	6	6	12	8	20	13	16	29	13	21	34
1890-91	5	4	9	6	10	16	6	9	15	8	8	16	12	14	26	26	28	54
1891-92	3	6	9	3	7	10	10	11	21	7	17	24	17	10	27	32	34	66
1892-93	6	7	13	7	7	14	12	8	20	13	14	27	11	22	33	12	22	34
1893-94	8	7	15	5	5	10	2	9	10	8	15	23	8	20	28	28	19	47
1894-95	4	3	7	5	6	11	4	6	10	10	17	27	5	21	26	25	21	46
1895-96	8	9	17	5	4	9	7	8	15	11	17	28	29	22	51	24	21	45
1896-97	1	10	11	4	5	9	7	8	15	5	1	6	21	19	40	24	20	44
Total pneumonia	82	125	207	89	142	231	111	152	253	152	215	367	270	319	589	404	446	850
Total bronchitis	41	70	111	37	65	102	47	66	113	71	102	173	77	126	203	125	174	299
Total congestion of lungs	39	31	70	38	26	64	44	42	86	57	64	121	72	73	145	90	91	181
Total acute lung diseases	162	226	388	164	233	397	202	260	452	280	381	661	419	518	937	619	711	1,330

Years.	January.			February.			March.			April.			May.			June.		
	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.
1875-76	15	36	51	23	29	52	40	38	78	22	44	66	15	26	41	2	6	8
1876-77	30	28	58	19	42	61	23	31	54	14	19	33	7	8	25	5	13	18
1877-78	23	26	49	16	21	37	16	34	50	17	20	37	15	36	51	9	25	34
1878-79	22	34	56	20	34	54	30	47	77	19	30	49	4	21	25	3	10	13
1879-80	18	23	41	15	22	37	31	30	61	14	25	39	6	20	26	11	8	19
1880-81	20	22	42	18	23	41	24	38	62	19	27	46	12	11	23	3	7	10
1881-82	18	19	37	22	30	52	19	36	55	20	16	36	15	16	31	8	8	16
1882-83	18	23	36	20	23	43	30	31	61	20	24	44	18	10	28	6	5	11
1883-84	19	19	38	21	17	38	24	18	42	20	22	42	11	11	22	5	5	10
1884-85	11	19	30	19	45	64	24	43	67	21	39	60	13	22	35	4	12	16
1885-86	19	17	36	16	26	42	23	29	52	22	29	51	10	13	23	7	7	14
1886-87	17	19	36	20	15	35	14	15	29	18	13	31	4	9	13	6	3	9
1887-88	28	29	57	26	22	48	29	30	59	22	20	42	16	9	25	3	4	7
1888-89	16	27	43	27	27	54	32	28	60	18	18	36	4	10	14	7	2	9
1889-90	48	71	119	25	27	52	22	27	49	20	23	43	13	19	32	9	13	22
1890-91	23	17	40	17	19	36	44	36	80	86	71	157	11	31	42	14	15	29
1891-92	75	64	139	42	45	87	30	37	67	17	21	38	14	9	23	6	10	16
1892-93	27	30	57	28	37	65	48	47	95	25	25	50	22	23	45	9	13	22
1893-94	29	28	57	39	22	61	32	45	77	22	32	54	11	17	28	2	12	14
1894-95	26	24	50	35	33	68	40	35	75	36	24	54	17	17	34	6	9	15
1895-96	41	42	83	42	48	90	27	35	62	20	37	57	9	14	23	5	15	20
1896-97	46	34	80	61	38	99	40	35	75	31	26	57	13	17	30	10	9	19
Total pneumonia	584	651	1,235	571	645	1,216	642	645	1,387	517	605	1,122	250	369	619	140	211	351
Total bronchitis	150	223	373	143	230	373	172	228	400	133	184	317	78	113	191	47	89	136
Total congestion of lungs	157	130	287	110	104	214	117	85	202	98	91	189	57	71	128	43	43	86
Total acute lung diseases	891	1,004	1,895	824	979	1,803	931	958	1,989	748	880	1,628	385	553	938	230	343	573

XVIII.—*Deaths from bronchitis during twenty-two years, from July 1, 1875, to June 30, 1897, inclusive, by years, months, and color.*

s.	July.			August.			September.			October.			November.			December.		
	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.
.....	1	1	2	3	....	3	1	2	3	2	3	5	4	3	7	5	2	7
.....	3	2	5	3	2	5	2	3	5	3	5	8	2	2	4	6	7	13
.....	1	....	1	....	....	....	....	....	....	1	1	2	....	2	2	3	4	7
.....	1	1	2	2	4	6	3	2	5	3	2	5	3	4	7	6	4	10
.....	2	....	2	....	4	4	....	4	4	1	2	3	1	4	5	4	8	12
.....	....	4	4	2	4	6	4	5	9	2	4	6	1	6	7	1	5	6
.....	....	3	3	1	....	1	1	2	3	4	2	6	4	7	11	2	8	10
.....	1	1	2	1	....	1	....	4	4	2	6	8	1	8	9	4	7	11
.....	1	1	2	2	3	5	1	3	4	3	5	8	2	11	13	6	14	20
.....	1	5	6	2	1	3	2	3	5	2	4	6	1	5	6	4	10	14
.....	4	4	8	1	2	3	1	4	5	2	7	9	3	8	11	3	3	6
.....	2	4	6	4	4	8	3	5	8	6	9	15	4	11	15	2	7	9
.....	1	....	1	1	2	3	3	1	4	1	5	6	4	3	7	5	5	10
.....	1	4	5	1	3	4	3	2	5	5	5	10	3	6	9	12	9	24
.....	4	4	8	1	3	4	2	1	3	5	2	7	2	10	12	7	11	18
.....	2	5	7	3	9	12	4	2	6	3	10	13	4	7	11	6	10	16
.....	1	6	7	2	4	6	1	3	4	3	5	8	6	9	15	9	14	23
.....	3	7	10	2	6	8	4	7	11	5	6	11	8	7	15	7	11	18
.....	4	6	10	1	1	2	5	2	7	7	8	15	6	3	9	8	16	24
.....	3	5	8	2	4	6	1	3	4	3	4	7	7	3	10	5	5	10
.....	4	3	7	1	7	8	3	5	8	3	6	9	6	4	10	14	8	22
.....	1	4	5	2	2	4	3	3	6	5	1	6	5	3	8	6	6	12
.....	41	73	111	37	65	102	47	66	113	71	102	173	77	126	203	125	174	299

s.	January.			February.			March.			April.			May.			June.		
	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.
.....	3	6	9	5	4	9	10	5	15	6	5	11	2	....	2	1	3	4
.....	5	4	9	2	10	12	2	5	7	5	1	6	1	....	1	....	3	3
.....	4	5	9	3	3	6	3	2	5	3	1	4	2	4	6	2	6	8
.....	6	4	10	2	5	7	6	8	14	2	12	14	....	5	5	2	1	3
.....	6	6	12	7	14	21	5	14	19	3	8	11	2	5	7	....	7	7
.....	4	7	11	6	8	14	4	9	13	3	11	14	2	5	7	1	....	1
.....	....	8	8	3	9	12	2	5	7	6	7	13	1	4	5	3	6	9
.....	4	5	9	2	9	11	5	7	12	1	5	6	2	6	8	1	5	6
.....	9	13	22	9	17	26	6	11	17	4	4	8	2	3	5	....	1	1
.....	3	10	13	8	4	12	5	3	8	2	13	15	2	7	9	2	2	4
.....	8	8	16	4	12	16	8	13	21	6	9	15	1	4	5	2	4	6
.....	2	8	10	8	7	15	7	5	12	4	8	12	5	8	13	2	3	5
.....	5	14	19	8	10	18	8	15	23	2	2	4	3	1	4	2	3	5
.....	7	14	21	5	14	19	11	8	19	4	11	15	1	2	3	1	2	3
.....	6	25	31	6	13	19	11	16	27	9	10	19	9	12	21	2	10	12
.....	8	8	16	10	9	19	10	19	29	32	22	54	12	14	26	6	7	13
.....	25	22	47	19	20	39	15	11	26	6	11	17	7	10	17	6	4	10
.....	11	24	35	11	19	30	16	14	30	12	11	23	11	8	19	3	3	6
.....	10	9	19	5	12	17	15	14	29	7	9	16	6	5	11	2	8	10
.....	4	7	11	6	13	19	8	9	17	8	7	15	4	4	8	3	4	7
.....	7	8	15	8	9	17	7	14	21	4	13	17	3	5	8	2	3	5
.....	13	8	21	6	9	15	8	11	19	4	4	8	....	1	1	4	4	8
.....	150	223	373	143	230	373	172	228	400	133	184	317	78	113	191	47	89	136

TABLE XXXIX.—*Deaths from congestion of the lungs during twenty-two years, fro 1, 1875, to June 30, 1897, inclusive, by months, years, and color.*

Years.	July.			August.			September.			October.			November.			Dec
	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.
1875–76	2	1	3	2	1	3	2	4	6	....	4	4	2	5	7	1
1876–77	1	2	3	1	....	1	1	2	3	1	....	1	1	....	1	2
1877–78	1	....	1	3	3	6	2	1	3	....	3	3	3	1	4	....
1878–79	3	1	4	4	1	5	2	1	3	4	3	7	3	7	10	4
1879–80	4	1	5	1	....	1	5	1	6	1	1	2	6	4	10	....
1880–81	1	3	4	1	2	3	2	4	6	....	3	3	5	....	5	6
1881–82	1	....	1	1	1	2	2	1	3	3	4	7	4	4	8	4
1882–83	2	2	4	2	3	5	2	1	3	1	3	4	1	1	2	4
1883–84	....	....	....	....	3	3	....	3	3	2	3	5	4	1	5	1
1884–85	3	....	3	....	2	2	....	4	4	2	3	5	2	3	5	5
1885–86	1	1	2	3	....	3	3	....	3	1	5	6	4	2	6	2
1886–87	1	2	3	2	2	4	....	3	3	5	1	6	3	1	4	4
1887–88	2	1	3	....	1	1	2	6	8	1	1	2	3	4	7	4
1888–89	....	1	1	3	2	5	1	....	1	4	8	12	3	5	8	3
1889–90	3	2	5	2	....	2	2	1	3	8	1	9	1	2	3	4
1890–91	2	2	4	2	1	3	2	....	2	1	....	1	2	2	4	2
1891–92	3	2	5	2	....	2	1	1	2	5	3	8	7	5	12	10
1892–93	....	....	....	2	1	3	7	2	9	6	6	11	6	5	11	8
1893–94	2	1	3	2	....	2	1	1	2	1	1	2	5	5	10	10
1894–95	1	3	4	3	....	3	3	4	7	3	7	10	1	4	5	5
1895–96	5	5	10	1	2	3	2	1	3	7	2	9	5	9	14	8
1896–97	1	1	2	1	1	2	2	1	3	2	2	4	1	3	4	3
Total	39	31	70	38	26	64	44	43	86	57	64	121	72	73	145	90

Years.	January.			February.			March.			April.			May.			Ju
	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.
1875–76	1	3	4	3	4	7	3	5	8	8	2	10	1	1	2	....
1876–77	7	4	11	5	1	6	3	3	6	2	2	5	2	1	3	2
1877–78	5	2	7	5	1	6	6	2	8	1	4	5	3	4	7	3
1878–79	6	6	12	4	8	12	5	4	9	3	6	9	2	2	4	2
1879–80	6	2	8	9	7	16	1	2	3	2	6	8	2	....	2	....
1880–81	4	2	6	6	6	12	2	5	7	1	....	1	3	1	4	3
1881–82	7	4	11	5	5	10	7	3	10	6	2	8	1	7	8	....
1882–83	6	6	12	1	1	2	4	3	7	4	5	9	3	3	6	1
1883–84	6	10	16	1	6	7	8	1	9	2	3	5	2	1	3	5
1884–85	10	5	15	7	5	12	6	1	7	3	5	8	1	1	2	....
1885–86	1	6	7	4	4	8	2	1	3	2	4	6	....	2	2	3
1886–87	11	4	15	3	3	6	4	2	6	6	5	11	2	2	4	2
1887–88	8	3	11	5	5	10	4	6	10	2	4	6	....	4	4	....
1888–89	4	3	7	4	2	6	5	5	10	2	2	4	2	3	5	4
1889–90	10	7	17	1	2	3	5	3	8	2	1	3	6	3	9	2
1890–91	3	6	9	2	3	5	10	2	12	22	12	34	4	5	9	3
1891–92	18	11	29	13	6	10	10	7	17	3	6	9	4	4	8	3
1892–93	20	6	26	9	8	17	7	6	13	4	4	8	6	6	12	4
1893–94	5	11	16	6	5	11	11	5	16	3	3	6	2	4	6	2
1894–95	8	10	13	9	8	17	5	7	12	13	7	20	5	6	11	2
1895–96	11	12	23	4	5	9	4	4	8	2	3	5	4	6	10	1
1896–97	5	7	12	4	9	13	5	8	13	5	4	9	2	5	7	1
Total	157	130	287	110	104	214	117	85	202	98	91	189	57	71	128	43

XL.—*Mean daily dew-point, relative humidity, and the number of deaths from acute lung diseases in each month for sixteen years, from 1882 to 1897, inclusive.*

ars.	July.			August.			September.			October.		
	Dew-point.	Relative humidity.	Deaths.	Dew-point.	Relative humidity.	Deaths.	Dew-point.	Relative humidity.	Deaths.	Dew-point.	Relative humidity.	Deaths.
.....	64.6	67.8	10	64.8	70.8	13	66.9	74.3	13	53.2	73.4	24
.....	63.1	67.1	15	64.6	75.2	17	64.6	77.1	16	53.2	77.9	23
.....	64.8	68.9	9	59.6	67.9	15	55.9	74.3	13	49.0	76.9	31
.....	63.5	72.3	17	65.1	75.1	10	60.3	69.7	15	47.6	68.3	21
.....	65.6	68.8	19	63.7	73.7	12	55.3	71.2	16	47.4	78.6	25
.....	64.4	74.4	17	63.9	75.0	24	59.7	73.4	22	46.5	70.0	32
.....	69.6	71.9	9	63.0	72.7	8	55.0	83.8	26	42.5	65.9	20
.....	63.7	77.0	11	67.1	79.6	19	58.1	83.8	16	43.1	76.8	45
.....	67.5	80.4	17	63.5	79.0	12	57.9	81.3	12	43.3	76.5	35
.....	63.1	71.2	20	63.8	77.7	31	59.6	81.7	23	46.4	76.4	30
.....	62.3	96.7	21	66.2	81.7	18	62.4	82.8	27	43.3	73.5	40
.....	66.3	76.5	23	65.1	73.5	25	55.7	74.4	40	42.0	68.0	49
.....	63.0	67.0	28	61.2	57.2	14	56.0	76.0	19	46.8	77.0	40
.....	64.1	68.0	19	63.4	75.5	20	64.2	76.9	21	47.6	76.2	44
.....	62.5	74.8	34	65.4	72.0	20	60.1	72.8	26	37.4	64.4	46
.....	68.0	76.0	18	104.4	72.0	15	58.9	78.2	24	43.1	72.3	29
tal	1036.1	1178.8	277	1024.4	1187.8	273	950.6	1220.9	329	732.4	1179.1	534
an	65.0	73.9	17.3	64.0	74.6	17.1	59.4	76.3	20.6	45.8	73.7	33.4

ars.	November.			December.			January.			February.		
	Dew-point.	Relative humidity.	Deaths.	Dew-point.	Relative humidity.	Deaths.	Dew-point.	Relative humidity.	Deaths.	Dew-point.	Relative humidity.	Deaths.
.....	39.7	74.9	39	34.5	76.6	54	27.4	80.9	56	31.5	76.6	74
.....	33.6	71.6	39	25.3	67.7	55	24.3	81.6	57	29.0	73.5	56
.....	37.6	71.0	42	29.2	75.6	87	23.2	77.9	76	34.2	78.5	71
.....	34.6	70.3	40	29.7	79.3	49	24.0	71.0	58	18.6	72.3	88
.....	37.7	76.2	33	27.6	69.1	30	23.7	81.4	59	24.8	76.2	66
.....	32.9	63.3	39	22.6	73.7	52	22.6	67.9	61	28.6	70.6	56
.....	30.3	60.1	37	27.2	69.7	42	21.2	73.6	87	27.8	75.5	76
.....	37.9	75.0	37	25.4	68.5	74	28.8	74.3	71	19.6	69.2	79
.....	37.8	78.2	44	34.0	72.8	60	32.7	71.7	211	33.0	74.5	94
.....	35.5	71.4	41	23.3	70.7	76	27.5	74.5	65	31.9	74.4	60
.....	33.5	72.9	44	30.5	69.7	103	22.8	73.2	215	27.0	73.7	145
.....	33.7	69.3	59	24.0	74.0	64	15.0	71.0	118	24.0	68.0	112
.....	33.5	73.5	47	27.8	71.2	83	29.4	76.6	92	26.2	73.0	89
.....	32.1	68.3	41	27.8	75.4	66	24.4	77.0	74	14.0	62.8	104
.....	38.2	80.6	75	29.5	74.3	80	23.2	69.4	121	24.7	67.2	116
.....	40.4	74.4	52	24.3	67.5	62	20.7	70.6	113	20.7	79.5	127
tal	568.0	1151.0	708	442.7	1155.8	1,037	390.9	1142.6	1,534	424.6	1152.5	1,413
an	35.5	71.9	44.3	27.8	72.2	64.2	24.4	74.5	95.9	26.5	72.0	88.3

TABLE XL.—*Mean daily dew-point, relative humidity, and the number of deaths from acute lung diseases in each month for sixteen years, from 1882 to 1897, inclusive*—Continued.

Years.	March.			April.			May.			June.		
	Dew-point.	Relative humidity.	Deaths.	Dew-point.	Relative humidity.	Deaths.	Dew-point.	Relative humidity.	Deaths.	Dew-point.	Relative humidity.	Deaths.
1882	33.5	69.3	72	39.3	68.1	57	48.3	70.9	44	60.0	64.5	29
1883	25.8	65.9	80	42.1	74.0	59	50.2	65.0	32	62.9	70.1	21
1884	33.1	72.9	68	36.6	62.1	55	51.4	66.0	30	61.6	71.4	19
1885	24.0	67.0	82	37.7	59.4	33	50.0	68.1	46	62.9	70.1	25
1886	32.0	70.8	76	46.9	75.7	72	55.3	80.4	30	64.2	82.2	25
1887	23.9	59.6	47	37.1	61.7	54	56.0	69.3	30	59.7	68.0	18
1888	27.2	69.4	92	37.3	59.1	52	53.5	74.5	33	61.8	70.0	14
1889	31.6	68.2	89	42.3	70.9	55	54.5	73.2	22	62.1	77.2	16
1890	28.5	67.2	89	40.1	63.6	65	53.2	72.8	65	66.7	68.9	37
1891	28.1	72.8	121	40.6	61.9	245	49.0	68.4	140	61.4	74.0	48
1892	26.8	70.1	120	38.7	64.8	64	52.0	69.2	48	66.2	75.0	32
1893	28.0	65.0	188	42.0	67.0	81	50.0	68.7	82	66.0	73.0	33
1894	35.0	65.6	122	39.2	63.2	76	54.1	69.9	45	61.0	67.6	26
1895	27.4	61.6	104	39.8	64.4	85	52.0	72.6	43	63.9	72.3	25
1896	27.0	67.0	91	43.4	65.5	79	57.3	72.7	41	61.1	75.4	28
1897	36.0	73.5	107	38.1	60.8	74	51.0	69.3	38	60.4	74.8	28
Total	458.9	1085.9	1,498	641.2	1036.9	1,256	829.8	1129.3	768	997.9	1152.7	374
Mean	28.7	67.9	93.6	40.1	64.8	78.5	51.9	70.6	48.0	62.4	72.0	23.4

TABLE XLI.—*Percentage of deaths from pneumonia, bronchitis, and congestion of the lungs; also from total acute lung diseases to total population, and the total deaths therefrom since 1876 to the year 1897, inclusive.*

Years.	Total population in each year.	Total deaths from all causes in each year.	Deaths from pneumonia in each year.	Percentage of deaths from pneumonia to total deaths.	Percentage of deaths from pneumonia to total population.	Deaths from bronchitis in each year.	Percentage of deaths from bronchitis to total deaths.
1876	157,600	4,160	423	10.2	2.67	77	1.85
1877	162,375	4,208	350	8.3	2.21	78	1.85
1878	167,300	4,231	337	8.0	2.13	50	1.18
1879	172,377	4,309	406	9.4	2.37	98	2.28
1880	177,638	4,207	328	7.8	1.90	107	2.55
1881	183,060	4,136	328	7.9	1.86	98	2.37
1882	188,653	4,571	320	7.0	1.70	88	1.92
1883	191,980	4,286	314	7.3	1.60	87	2.02
1884	196,490	4,814	317	6.6	1.60	131	2.73
1885	201,110	4,998	354	7.0	1.77	101	2.00
1886	205,840	4,672	286	6.1	1.40	121	2.59
1887	210,680	4,665	251	5.4	1.20	128	2.75
1888	215,630	5,040	323	6.4	1.40	104	2.06
1889	222,830	5,152	331	6.4	1.32	134	2.60
1890	232,460	5,564	416	7.5	1.76	181	3.25
1891	242,520	5,720	517	9.0	2.06	227	3.97
1892	253,010	6,098	527	8.6	2.03	219	3.56
1893	260,800	6,452	475	7.3	1.66	216	3.35
1894	265,600	6,039	424	7.0	1.49	169	2.80
1895	270,514	5,565	413	7.4	1.52	122	2.19
1896	275,500	5,904	500	8.5	1.80	147	2.48
1897	280,800	5,737	509	8.8	1.81	114	1.98
Total and mean	4,734,767	110,529	8,449	7.7	1.78	2,788	2.46

XLI.—*Percentage of deaths from pneumonia, bronchitis, and congestion of the ; also from total acute lung diseases to total population, and the total deaths rom since 1876 to the year 1897, inclusive*—Continued.

Years.	Percentage of deaths from bronchitis to total population.	Deaths from congestion of lungs in each year.	Percentage of deaths from congestion of lungs to total deaths.	Percentage of deaths from congestion of lungs to total population.	Total deaths from acute lung diseases in each year.	Percentage of deaths from acute lung diseases to total deaths.	Percentage of deaths from acute lung diseases to total population.
.....	0.50	59	1.42	0.31	559	13.5	3.5
.....	.48	44	1.05	.27	472	11.2	2.9
.....	.30	56	1.32	.23	443	10.5	2.7
.....	.67	86	2.02	.59	590	13.7	3.4
.....	.60	74	1.82	.41	509	12.1	2.9
.....	.53	68	1.64	.37	494	11.9	2.7
.....	.46	77	1.70	.49	485	10.6	2.6
.....	.45	69	1.60	.36	470	10.0	2.5
.....	.65	68	1.42	.34	516	10.7	2.6
.....	.50	79	1.58	.39	534	10.6	2.7
.....	.60	56	1.20	.27	463	10.0	2.3
.....	.60	73	1.56	.35	452	9.7	2.2
.....	.46	69	1.30	.30	496	9.8	2.2
.....	.53	69	1.34	.30	534	10.3	2.1
.....	.72	73	1.31	.30	670	12.0	2.7
.....	.90	98	1.71	.39	842	14.7	3.4
.....	.81	131	2.15	.50	877	14.2	3.4
.....	.76	136	2.11	.48	827	12.8	2.9
.....	.59	88	1.45	.31	681	11.2	2.4
.....	.44	115	2.07	.41	680	11.7	2.4
.....	.53	110	1.86	.40	757	12.8	2.7
.....	.40	79	1.37	.28	702	12.2	2.5
al and mean	.57	1,777	1.59	.35	13,023	11.6	2.7

XLII.—*Comparative statement of deaths of persons 60 years of age and over, percentages to total deaths and to total population, for thirteen years from 1884 to*

Years.	Total population.	Total deaths.	Deaths of persons 60 years of age and over, less those by violence.	Percentage of deaths of those 60 years and over to total deaths.	Number of deaths of those 60 years and over to 1,000 of population.	Number of deaths of all ages to 1,000 of population.
.....	201,110	4,998	889	17.80	4.4	24.99
.....	205,840	4,674	875	18.72	4.2	22.80
.....	210,680	4,665	860	18.43	4.1	22.21
.....	215,630	5,040	959	19.03	4.2	22.40
.....	222,830	5,152	884	17.14	3.6	20.60
.....	232,460	5,564	966	17.36	3.8	22.25
.....	242,520	5,720	1,137	19.88	4.5	22.88
.....	253,010	6,098	1,206	19.78	4.6	23.45
.....	260,800	6,452	1,292	20.00	5.5	22.64
.....	265,600	6,039	1,192	19.74	4.2	21.19
.....	270,514	5,565	1,131	20.32	4.1	20.57
.....	275,500	5,904	1,174	19.88	4.3	21.43
.....	280,800	5,737	1,310	22.83	4.7	20.43
gregate and mean.....	3,137,294	71,608	13,875	22.83	4.4	22.15

TABLE XLIII.—*Comparative statement exhibiting general results of marriages, bi and deaths during the seven years ended June 30, 1897.*

Subject.	Year ended June 30—						
	1891.	1892.	1893.	1894.	1895.	1896.	18
Marriages	1,289	1,148	1,424	1,496	2,391	2,237	1
Births	4,344	4,614	4,428	5,042	4,794	4,705	4
Deaths	5,720	6,098	6,452	6,039	5,565	5,904	5
Death rates	22.88	23.46	22.64	21.19	20.57	21.43	2
Deaths under 1 year of age	1,433	1,571	1,770	1,646	1,257	1,523	1
Deaths under 5 years of age	2,070	2,185	2,361	2,222	1,775	2,090	1
Deaths 50 years of age and over	1,635	1,790	1,926	1,917	1,773	1,776	1
Deaths in institutions	1,027	1,142	1,265	1,183	1,147	1,257	
Causes of death:							
Measles	69	5	10	10	10	70	
Scarlet fever	14	26	7	14	16	13	
Diphtheria	164	182	128	172	124	75	
Whooping cough	30	76	30	74	58	22	
Typhoid fever	208	183	137	191	187	238	1
Malarial fevers	80	85	50	26	64	84	
Meningitis	87	88	105	83	88	95	
Diarrheal diseases	372	476	575	519	300	468	1
Croup	40	39	30	26	17	9	
Acute lung diseases	842	887	827	681	650	757	
Consumption	749	714	681	675	671	705	
Bright's disease of the kidneys	63	69	63	49	38	41	
Heart disease (excluding aneurisms)	337	345	345	340	368	394	
Violence	202	222	298	267	248	224	
All other diseases	2,463	2,701	3,116	2,912	2,726	2,709	2

TABLE XLIV.—*Mean temperature in the District of Columbia.*

Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	
1870											44.6	3
1871	32.6	35.9	48.0	58.2	63.9	73.2	74.0	76.8	62.3	58.1	42.3	3
1872	31.7	33.7	35.4	56.0	67.4	75.4	81.8	79.0	69.0	65.5	42.5	2
1873	30.9	34.8	41.8	53.1	63.6	75.1	79.8	74.8	68.0	54.9	40.8	4
1874	40.8	37.2	44.5	47.6	63.8	77.5	78.9	71.6	70.1	55.9	44.6	3
1875	29.5	28.8	39.1	48.0	63.6	72.9	77.0	71.9	64.6	53.6	41.0	3
1876	40.3	36.7	39.4	51.4	64.5	75.8	81.4	75.5	65.2	50.7	45.2	2
1877	29.4	39.4	41.0	52.9	61.9	73.9	77.8	76.3	66.9	58.6	46.2	4
1878	33.5	39.8	49.4	58.3	62.5	69.1	80.2	75.0	68.9	57.0	45.4	3
1879	30.8	31.6	43.5	51.8	65.3	72.9	78.6	73.9	64.4	62.0	45.6	4
1880	41.9	40.8	41.8	55.5	70.5	73.5	76.7	74.9	67.9	54.9	40.2	5
1881	27.6	32.3	40.1	50.3	67.0	70.7	77.4	76.5	77.0	62.9	47.5	4
1882	33.2	40.4	44.1	50.8	59.2	73.8	76.0	73.8	69.1	60.9	42.9	3
1883	29.6	37.5	37.6	50.9	63.6	74.4	76.8	72.1	65.1	56.9	47.2	3
1884	29.4	40.9	42.2	50.9	64.4	72.5	74.2	74.2	71.7	59.6	44.7	3
1885	32.9	26.9	34.5	53.1	62.3	71.4	77.8	73.4	66.1	54.7	45.3	3
1886	28.9	32.2	42.0	55.5	62.1	69.9	73.9	73.1	69.3	57.6	46.1	3
1887	32.9	38.9	38.5	51.6	67.9	72.1	80.5	73.2	65.0	55.4	44.9	3
1888	29.2	35.7	37.5	52.9	62.7	73.0	72.9	73.9	63.2	50.5	45.8	3
1889	36.8	29.4	42.3	53.2	63.8	69.8	74.2	70.6	65.6	52.5	46.2	4
1890	44.2	43.4	41.4	53.7	63.8	74.9	74.1	73.5	67.7	56.2	47.6	4
1891	37.3	41.5	38.5	55.4	61.3	71.4	72.0	74.5	70.2	54.4	43.9	4
1892	31.7	36.9	37.7	51.5	63.8	76.2	75.7	76.2	66.2	55.0	43.6	3
1893	24.0	34.9	41.0	54.0	61.6	72.0	77.0	74.7	66.0	56.4	43.6	4
1894	37.7	35.2	48.6	53.2	64.8	73.7	78.0	73.9	71.4	57.8	43.8	4
1895	31.6	26.2	41.8	53.8	62.6	74.6	72.7	77.3	72.4	52.1	46.4	4
1896	33.3	36.6	38.6	66.5	68.8	71.3	76.6	75.7	67.7	54.0	50.6	1

TABLE XLV.—*Mean relative humidity in the District of Columbia.*

Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual mean.
1874									72.2	68.7	66.1	65.5	66.8
1875	73.6	67.2	69.0	65.1	53.7	64.2	70.3	81.8	70.9	70.1	72.0	79.1	69.7
1876	68.0	69.6	67.2	59.6	64.7	65.3	64.5	73.2	72.8	68.9	74.1	69.5	68.1
1877	74.9	61.9	66.4	63.6	61.7	71.6	71.7	71.3	75.9	74.8	73.2	71.3	69.9
1878	76.8	70.4	63.8	63.0	66.6	66.7	69.5	77.3	77.0	71.6	72.4	71.4	70.5
1879	72.3	67.0	58.6	57.7	61.7	63.9	60.4	71.9	71.3	67.4	64.3	71.9	65.7
1880	74.1	65.3	65.8	55.5	58.5	63.0	65.1	70.8	68.9	67.9	70.5	74.2	66.6
1881	77.6	73.4	67.3	66.0	69.3	72.7	67.8	70.9	74.4	73.4	74.9	76.0	72.0
1882	80.9	72.6	69.3	68.1	70.9	74.9	67.1	75.2	77.2	78.0	71.6	71.3	73.2
1883	81.6	73.5	65.9	74.0	64.9	70.1	68.9	67.9	74.3	77.0	71.0	75.2	72.0
1884	77.9	78.5	72.9	62.1	66.0	71.4	72.3	75.1	69.8	68.3	70.3	79.4	72.0
1885	71.1	72.2	67.0	59.4	68.1	60.0	68.8	73.7	71.2	78.6	76 2	69.1	09.6
1886	81.4	76.2	70.8	75.7	80.4	83.2	74.4	75.0	73.7	70.0	63.3	73.7	74.8
1887	67.9	70.6	59.6	61.7	69.3	68.0	71.9	72.8	72.9	65.9	60.1	69.7	67.5
1888	73.6	75.5	69.4	59.1	74.5	70.0	77.0	79.6	83.8	76.8	75.0	68.5	73.6
1889	74.4	69.2	67.2	69.2	73.2	77.2	80.4	79.0	81.3	76.5	78.2	72.8	75.0
1890	71.7	74.5	62.2	63.6	72.8	68.9	71.2	77.7	81.7	76.4	71.4	70.7	72.3
1891	74.5	74.4	72.8	61.9	68.4	74.0	96.7	81.7	82.8	73.5	72.9	69.7	75.2
1892	73.2	73.7	70.1	64.8	69.2	75.0	76.5	73.5	74.4	68.0	69.3	74.0	71.8
1893	71.0	68.0	65.0	67.0	68.7	72.0	67.0	67.2	76.0	77.0	73.5	71.2	70.4
1894	76.6	73.0	65.6	63.2	69.9	67.6	68.0	75.5	76.9	76.2	68.3	75.4	71.3
1895	77.0	62.8	61.6	64.4	72.6	72.3	74.8	72.0	72.8	64.4	80.6	74.3	70.8
1896	69.4	67.0	67.0	65.5	72.7	75.4	76.0	72.0	78.2	72.3	74.4	67.5	71.1

TABLE XLVI.—*Rainfall in the District of Columbia.*

Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
1870											1.57	0.46	.....
1871	2.20	1.99	5.92	1.54	3.45	4.78	6.10	1.59	2.70	1.50	4.85	1.36	37.98
1872	.23	.93	3.22	1.74	1.43	2.78	.82	5.72	3.92	4.83	2.75	2.49	30.86
1873	3.73	4.69	3.03	3.19	5.21	1.63	4.30	6.83	3.48	5.62	3.02	.97	45.70
1874	1.89	1.84	2.06	5.65	2.82	3.47	2.84	1.71	7.84	.29	2.08	2.59	34.58
1875	1.86	2.65	3.96	2.29	1.01	2.06	3.05	12.93	1.98	1.86	3.95	3.51	41.11
1876	1.68	3.50	5.52	2.43	3.02	4.59	5.12	4.17	10.81	2.99	2.83	1.30	47.96
1877	3.73	1.16	3.58	4.87	2.26	5.92	6.50	2.74	4.93	6.50	7.18	3.22	52.59
1878	4.77	2.54	4.31	3.32	5.27	6.33	8.37	8.89	2.46	5.86	3.03	4.94	60.09
1879	3.13	1.87	1.74	2.39	1.58	3.29	3.36	7.36	1.56	.79	1.10	4.66	32.83
1880	2.51	1.71	5.60	3.81	3.37	3.52	2.25	3.83	3.42	2.31	2.48	4.02	38.83
1881	5.14	4.01	6.61	2.08	1.86	5.71	1.67	1.07	2.19	3.29	2.45	6.12	42.20
1882	7.09	5.09	3.75	2.55	5.00	2.33	4.46	4.44	7.84	.53	1.33	2.38	46.79
1883	3.15	5.08	3.27	4.09	2.50	8.55	4.73	3.30	4.33	2.63	1.19	2.89	45.71
1884	5.59	6.84	7.24	1.86	3.09	6.95	7.39	1.01	.14	1.73	3.42	4.70	49.96
1885	4.46	4.63	1.53	1.71	2.85	3.30	3.03	6.49	2.15	8.69	3.33	2.67	44.84
1886	5.91	4.32	6.41	2.71	10.60	6.75	10.63	2.43	1.79	1.20	2.88	3.44	58.17
1887	2.39	3.42	3.83	3.24	2.50	2.99	3.29	2.34	3.12	1.82	1 83	4.31	35.06
1888	2.99	3.19	4.53	1.89	4.77	3.53	4.47	3.35	6.82	3.27	2.97	3.27	45.00
1889	4.05	2.47	4.20	6.13	10.69	5.01	8.13	3.07	3.88	4.48	6.03	.19	61.33
1890	1.54	4.20	3.65	2.81	4.73	2.02	3.24	5.50	4.22	5.15	.79	3.74	41.59
1891	6.14	4.49	8.84	2.94	3.72	4.61	8.40	4.18	3.12	2.24	1.47	2.80	53.05
1892	5.84	3.64	5.70	4.52	4.07	2.59	5.04	.27	3.55	.34	3.38	2.82	41.76
1893	1.85	4.25	1.83	3.21	5.41	1.81	1.44	2.32	3.91	4.11	4.30	2.27	36.71
1894	2.14	4.64	.98	3.34	4.03	1.24	2.14	2.00	1.53	3.14	1.52	4.15	32.85
1895	4.42	1.10	2.50	6.26	3.09	4.34	4.50	1.26	1.11	1.94	1.26	2.38	34.16
1896	2.27	5.31	5.16	1.07	2.26	2.39	3.69	2.65	3.18	.34	2.54	.30	25.97

TABLE XLVII.—*Statement showing the number of cases of diphtheria reported, together with the number of deaths therefrom, with percentages and by color, during the year ended June 30, 1897.*

Months.	Number of cases reported.	Number of deaths reported.	Cases.		Deaths.		Percentage of deaths to cases.	Percentage of deaths to 10,000 of population.	
			White.	Colored.	White.	Colored.		White.	Colored.
1896.									
July	26	12	26	2	10	2	42.86	0.53	0.2
August	23	2	9	14	1	1	8.70	.05	.1
September	48	12	28	20	5	7	25.00	.26	.7
October	59	18	42	17	11	7	30.51	.58	.7
November	112	9	99	13	7	2	8.04	.37	.2
December	116	13	103	13	11	2	11.29	.58	.2
1897.									
January	56	8	45	11	7	1	14.29	.37	.1
February	44	10	37	7	8	2	22.74	.43	.2
March	19	3	16	3	2	1	15.80	.11	.1
April	19	3	19	.....	3	.....	15.80	.16	.0
May	43	8	34	9	5	3	18.60	.26	.3
June	58	12	36	17	8	4	22.64	.42	.4
Total and mean	630	110	494	126	78	32	17.74	4.13	1.2

TABLE XLVIII.—*Statement showing the number of cases of scarlet fever reported, together with the number of deaths therefrom, with percentages and by color, during the year ended June 30, 1897.*

Months.	Number of cases reported.	Number of deaths reported.	Cases.		Deaths.		Percentage of deaths to total cases.	Percentage of deaths to 10,000 of population.	
			White.	Colored.	White.	Colored.		White.	Colored.
1896.									
July	8	.....	8	.....	.....	.....	.....	.....	.....
August	8	.....	7	1	.....	.....	.....	.....	.....
September	4	.....	4	.....	.....	.....	.....	.....	.....
October	13	.....	13	.....	.....	.....	.....	.....	.....
November	19	1	19	.....	1	.....	.062	.005	.....
December	20	.....	18	2	.....	.....	.....	.....	.....
1897.									
January	32	.....	29	3	.....	.....	.....	.....	.....
February	19	.....	18	1	.....	.....	.....	.....	.....
March	11	.....	10	1	.....	.....	.....	.....	.....
April	6	.....	4	2	.....	.....	.....	.....	.....
May	10	.....	9	1	.....	.....	.....	.....	.....
June	10	.....	9	1	.....	.....	.....	.....	.....
Total and mean	160	1	148	12	1	.....	.062	.005	.....

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TABLE XLVII.—*Statement showing the number of cases of diphtheria reported, together with the number of deaths therefrom, with percentages and by color, during the year ended June 30, 1897.*

Months.	Number of cases reported.	Number of deaths reported.	Cases.		Deaths.		Percentage of deaths to cases.	Percentage of deaths to 10,000 of population.	
			White.	Colored.	White.	Colored.		White.	Colored.
1896.									
July	25	12	26	2	10	2	42.86	0.53	0.22
August	23	2	9	14	1	1	8.70	.05	.11
September	48	12	28	20	5	7	25.00	.26	.79
October	59	18	42	17	11	7	30.51	.58	.79
November	112	9	99	13	7	2	8.04	.37	.22
December	116	13	103	13	11	2	11.29	.58	.22
1897.									
January	56	8	45	11	7	1	14.29	.37	.11
February	44	10	37	7	8	2	22.74	.43	.22
March	19	3	16	3	2	1	15.80	.11	.11
April	19	3	19	.....	3	.....	15.80	.16	.00
May	43	8	34	9	5	3	18.60	.26	.34
June	58	12	36	17	8	4	22.64	.42	.45
Total and mean..	630	110	494	126	78	32	17.74	4.13	1.62

TABLE XLVIII.—*Statement showing the number of cases of scarlet fever reported, together with the number of deaths therefrom, with percentages and by color, during the year ended June 30, 1897.*

Months.	Number of cases reported.	Number of deaths reported.	Cases.		Deaths.		Percentage of deaths to total cases.	Percentage of deaths to 10,000 of population.	
			White.	Colored.	White.	Colored.		White.	Colored.
1896.									
July	8	.....	8	.....	.....	.....	.....	.....	.....
August	8	.....	7	1	.....	.....	.....	.....	.....
September	4	.....	4	.....	.....	.....	.....	.....	.....
October	13	.....	13	.....	.....	.....	.....	.....	.....
November	19	1	19	.....	1	.....	.062	.005	.....
December	20	.....	18	2	.....	.....	.....	.....	.....
1897.									
January	32	.....	29	3	.....	.....	.....	.....	.....
February	19	.....	18	1	.....	.....	.....	.....	.....
March	11	.....	10	1	.....	.....	.....	.....	.....
April	6	.....	4	2	.....	.....	.....	.....	.....
May	10	.....	9	1	.....	.....	.....	.....	.....
June	10	.....	9	1	.....	.....	.....	.....	.....
Total and mean.	160	1	148	12	1	.....	.062	.005	.....

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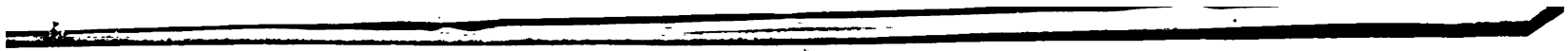

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